A COMPUSERVE PUBLICATION PRINTED MONTHLY/ONLINE DAILY

ONLINE TODAY

July, 1989

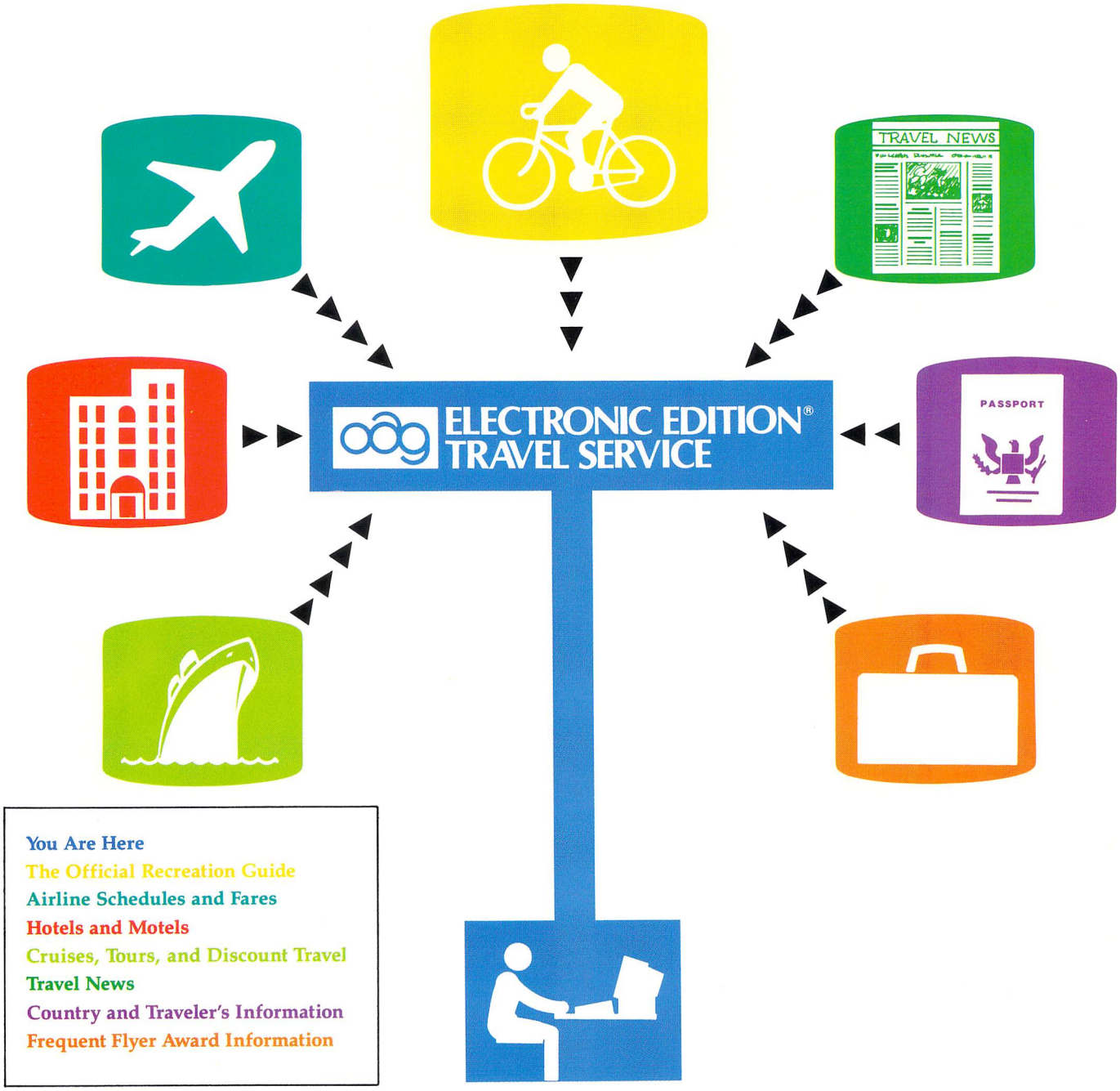
$2.50

Behind the Screens at CompuServe: *Celebrating 10 Years of Service*

Bulk Rate
U.S. Postage
Paid
CompuServe

CompuServe, P.O. Box 20212,
Columbus, OH 43220-0212

FREE
SHOPPING IN THE ELECTRONIC MALL
IS FEATURED THROUGH THE SUMMER.
TAKE ADVANTAGE OF ONLINE SALES,
SPECIALS, EVENTS, CONTESTS AND
GRAND OPENINGS. **GO MALL**



Going Someplace? Go Direct.

Now, all your business *and* leisure travel planning is as easy as logging-in to the OAG ELECTRONIC EDITION TRAVEL SERVICE®.

Complete information on thousands of parks, resorts, safaris, cruises, spas, other exciting leisure and adventure activities is now available online with the Official Recreation Guide.

As always, the ELECTRONIC EDITION TRAVEL SERVICE puts you in *control* of your travel planning by giving you the unique ability to choose from all the direct flights while letting you comparison shop for the lowest available fare *before* you book your trip.

So plan your next adventure or business trip the complete and easy way. Go direct with the OAG ELECTRONIC EDITION TRAVEL SERVICE.

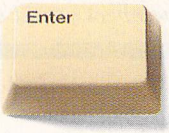
Anything else may steer you the wrong way!

On CompuServe, enter GO OAG

1-800-323-4000

Official Airline Guides
GO OLI for more information.

Sometimes It Takes A Touch Of Reality



To Appreciate A Keystroke Of Genius.

CheckFree. The nationwide electronic banking system.

It pays all your bills. And more. In minutes. Conveniently. Efficiently. With your computer and modem.

No more writing checks. No more paperwork. No more stamps. No more late charges.

And, it works no matter where you bank.

Payments are processed through the Federal Reserve System. Securely. On time. Any time. Every time. With automatic record-keeping and complete control.

Service: $9 per month. Servisware™: $49.95. First month free. Money back guarantee. Order today. Call 1 800 882-5280, or see your local retailer. CheckFree. It pays.

CheckFree®

Availability: Carried by leading retailers including Egghead Discount Software®, Radio Shack®, Software City®, and also available through CompuServe's Electronic Mall® (GO CF). **Modem Offer:** We will provide CheckFree servisware along with the new Hayes Personal Modem 1200 for just $148.95 plus shipping. (That's only $99.00 for Hayes' new modem.) **Guarantee:** For phone or mail orders, if you are not completely satisfied with CheckFree servisware, return with proof of purchase within 30 days for a full refund. **Hardware Requirements:** IBM® PC/compatibles w/256K RAM, MS/DOS® 2.1, Hayes® compatible modem, and two floppy drives or a hard disk system. **Tax:** Ohio residents add 5-1/2% sales tax. **Limitation:** Nominal extra charge for more than 20 monthly transactions. CheckFree is a registered trademark of Checkfree Corporation. All other trademarks are the property of their respective corporations.

GO OLI for more information.

CONTENTS

FEATURE

12 Ten Years and Counting
The CompuServe Information Service celebrates its 10th anniversary this year. From fledgling company to the world's most-frequented information service, 'CIS' has come a long way. How did it get there, and what does the future hold? Take a company tour on us, and meet the people who are more than happy to answer those questions.

BUSINESS/INVESTING

42 Fixed Securities Revisited
High interest rates have made some investors take a second look at municipal bonds and other fixed income securities.

COMPUTING SERVICES

44 True Multitasking Awaits
OS-9 forum members would rather fight than switch.

LIFESTYLES

46 Electronic Pen Pals
Friends exchange letters and engage in heart-felt talks worldwide.

48 Hooray for Hollywood
Editor Eliot Stein combines technology and show business on his Hollywood Hotline database.

TRAVEL

50 Discover Columbus
Home sweet home to CompuServe, this Ohio city gets high marks for its livability and cultural offerings.

DEPARTMENTS

3 *Letters*
4 *Dear Reader*
5 *Monitor*
8 How to Get the Most Out of CompuServe
10 *Uploads: New and Classic Forum Files*
25 *Go Mall*
53 *At Your Service*
54 *Hardware and Software Reviews*
60 *Books*
61 *Industry Watch*
64 *Update: Last-minute News*

You're invited to our 10th anniversary celebration. Come on in. — page 12

Greg Sailor

Welcome to Columbus, Ohio, our hometown. Let us show you around. — page 50

Too Hot to Print

Catch computer industry news as it happens, keep up with online events, read special reports, commentary and more product reviews. You'll find it only in *Online Today Daily Edition*, a daily-updated newspaper full of information that's too hot to print. GO OLT.

Behind the Screens	**OLT-130**
CompuServe This Week	**OLT-50**
Letters to Editor	**OLT-30**
News This Week	**OLT-20**
Online Inquiry	**OLI-1**
Online Today Columns	**OLT-110**
Online Today Guide	**OLT-351**
Product Reviews	**OLT-200**
Special Reports	**OLT-2000**
Today's Daily News	**OLT-90**

Online Today (ISSN 0891-4672) is published monthly in the United States of America by CompuServe Incorporated, 5000 Arlington Centre Blvd., Columbus, OH 43220. POSTMASTER: Send address changes to *Online Today* Reader Administration, P.O. Box 20212, Columbus, OH 43220-0212.

LETTERS

CompuServe Navigator 3.0

I enjoyed the article on CompuServe Navigator 3.0 (May issue, page 20). During the past year, I have used Navigator 2.1 with much pleasure and look forward to the new version.

However, some important facts were omitted from the article. How do registered users upgrade and where? Local software outlets do not know about Navigator 3.0.

Brian McLaughlin
Portland, Oregon

Editor's note: Registered CompuServe Navigator users will be able to upgrade online only. Navigator 3.0 is expected to be available later this summer and will be announced in "What's New" (GO NEW), the Newsflash in the Macintosh Productivity Forum (GO MACPRO) and the Navigator Information Pages (GO NAV). To check the status of version 3.0 at any time, type GO NAV and select Option 1, "Navigator 3.0 Release Info."

DeskJet Printer

In reading the review of the DeskJet printer (May issue, page 57), I agree with the assessment except for the comment regarding compatibility with Harvard Graphics. You can convert colored charts to black and white patterns if you select "no color" under "print chart" options. The DeskJet and Harvard Graphics make a terrific combination. The newer DeskJet Plus is even better with its faster output.

Jim Rothwell
Simi Valley, Calif.

Genealogy

I have comments on "The President's Lineage" (May issue, page 6). Certainly Marilyn Monroe's putative father is not an "ancestor" of either Mr. Bush or Mr. Quayle. An ancestor has to be your father, mother, grandparents or great grandparents. Most of the people labeled as "ancestors" in this article are at best "cousins" or "relations." Furthermore, why is the lineage described as going "as far back as...the son of William the Conqueror"?

Frank Deis
Highland Park, N.J.

Profiles in Usage

In the Phil Boyer profile (May issue, page 43), Mr. Boyer is quoted as saying, "By law, all pilots must file plans with the FAA before each trip." While I have the greatest respect for the work Mr. Boyer does, I must point out that this statement is not correct. The FAA encourages pilots to file flight plans, but it does not, and should not, require flight plans for all flights.

Certainly all airline flights and all air taxi or commuter airline flights do have flight plans filed. And all instrument flight operations require a flight plan—to obtain the required clearance from Air Traffic Control for operation in controlled airspace.

As a matter of safety, I encourage all my students and other pilots to file a plan with the FAA when they travel away from their home airport. It is a wise thing to file a flight plan under the proper circumstances, but it is not a legal requirement to do so in all cases.

Ted Jardine,
Flight instructor
Woodinville, Wash.

AUTOSIG Enhancement

As a long-time CompuServe member and a new owner of an IBM computer, I was interested in the article "AUTOSIG Enhanced" (April issue, page 22). At the first opportunity, I rushed to do what was recommended in the article. It doesn't work.

There is indeed an IBM Communications Forum (GO IBMCOM). That forum does have libraries, including Library 1, which was mentioned in the article. However, Library 1 has the file AUTOSG.ARC, not AUTOSIG. The host computer is fussy; it will accept nothing less than the whole, perfect filename. Also, the file is not usable until it has been carefully "reinflated" with special de-arcing tools.

A.W. Goldman
Newton, Mass.

Editor's note: The appropriate files can be found by typing AUTOSIG when prompted for keywords in Library 1 of the IBM Communications Forum.

NOW...ON-LINE TRADING THROUGH QUICK & REILLY...

USE ANY PC, ANY MODEM.

...one of the largest discount brokers. ★ NO start-up charges. ★ NO monthly subscription charges. ★ Ultra-low commissions.

With Quick & Reilly's easy-to-use QUICK WAY on-line 24-hour brokerage service...

- You can have from one to 75 trading accounts with NO start-up or monthly subscription charges.
- You also get big savings on commissions.

COMPARE	100 sh @ 40	300 sh @ 30	1000 sh @ 20
QUICK & REILLY	$41	$ 75	$ 98
Charles Schwab	49	96	129
Merrill Lynch	97	195	356
Prudential Bache	91	190	398
Shearson Lehman Hutt	80	200	415
Paine Webber	85	162	390
Dean Witter Reynolds	94	186	404

(Telephone Survey 1/89.)

- You can get quotes on any stock, option or market index listed in the Wall Street Journal.
- You can place orders in minutes, day or night. Reports are sent back on-line, followed by written confirmations.
- You can monitor, on a single screen, the prices of up to 18 stocks. (You can similarly monitor options.)
- You have instant access to Standard & Poor's Reports, Value Line Data Base II, and 10 years of market data on some 50,000 securities.
- And, any time you wish, you can bypass your computer and get *personal service* from an individual Account Executive.
- Securities held in your account are protected up to $2,500,000.

For complete information plus an on-line demonstration and application for QUICK WAY—type GO QWK. Or call 800-221-5220 and ask for Quick Way. (In NY 800-522-8712.)

Quick & Reilly, Inc.
Member New York Stock Exchange SIPC
120 Wall Street, New York, NY 10005

GO OLI for more information.

DEAR READER

In all the years we've been conducting readership surveys and focus groups, by far the most frequent and persistent request is for articles that show behind-the-scenes activity at CompuServe. What do your facilities look like? How does CompuServe operate? Who are the people that make it work? How did it all begin? What's it like to work at CompuServe?

Although we've done articles in the past that focus on the nitty-gritty of CompuServe's network and computer facilities, we've not published much on the people (kind of California, but more highly strung and paler, except for Customer Service reps who are audibly tan), the ideas (mostly in hexadecimal form), the history (brief but engaging), the fabric of CompuServe (tweedy mauve)—the things that make the 500,000-member CompuServe Information Service tick.

Perhaps we kept the "behind-the-scenes" stuff under wraps because we weren't sure subscribers were ready for it. Do we really want the world to know that in the early days our service representatives would actually drive over to a customer's house to help out with a problem? Or that *Online Today's* publisher used to moon about the mailbox, waiting to count how many new Information Service applications came in? Do we want everyone to know what a good time we've had building the largest general information service in the world?

This month CompuServe is 20 years old and the Information Service is 10 years old. With 3,650 days behind us, we think it's almost safe. Ergo, we bring you an Information Service "anniversary special" beginning on page 12.

Most of the anniversary cover feature was written by Carole Gerber, a contributing editor who's been around our offices since *Online Today* first hit the presses eight years ago. Because she's a free-lancer, she still has an outsider's perspective of the company, much as you would if you walked into CompuServe off the street (but then, why would you want to do that?). Carole's the first to admit she's not a technical whiz, but she's excellent at capturing atmosphere in her stories and can charm a rutabaga into granting an interview, which is why we chose her to do the piece.

Charles Bowen, another "old hand" and contributing editor for *OLT*, has an interesting story on the development of forums, or "SIGs" as they used to be called. Charlie has a good perspective because he was one of the first sysops on CompuServe.

Finally, for those of you who revel in CompuServe minutiae (e.g. "List all forum commands from seven-point-three versions ago," or, "Name the little man who whistles real high into the phone when you dial up CompuServe"), hie thee to *OLT*'s CompuServe Anniversary Trivia contest on page 21. There's something for everyone—"old-timers" and new members alike—and all the answers can be found with a little online research. Prizes range from a $100 Information Service usage credit to gifts from The Electronic Mall.

Happy Anniversary CompuServe!

Douglas G. Branstetter
Editor

ONLINE TODAY

***Online Today*®, July 1989**
Volume 8 Number 7

Publisher
Calvin F. Hamrick III
Editorial Director
Richard A. Baker
Editor
Douglas G. Branstetter
Art Director
Thom Misiak
Senior Editor
Mary Mitchell
Managing Editor
Kassie Rose
Assistant Editors
Denise Erwin Anderson, Gayle Brown
Production Coordinator
Ronda Cheses
Design Coordinator
Dorothy Hogan
Contributing Editors
Charles E. Bowen, Cathryn Conroy, John Edwards, Carole Houze Gerber, Ernest E. Mau, Holly G. Miller
Copy Editor
Kacy Cook
Proofreader
Christine Neuzil
Photocomposition Coordinator
Susan Toombs
Editorial Assistant
Robert Loomis

ADVERTISING SALES
Associate Publisher
Peter A. Scott, 5000 Arlington Centre Blvd., Columbus, OH 43220; 614/457-8600; 70003,3731
Northeast Hajar Associates Inc., P.O. Box 345, Norwood, MA 02062; 617/769-8950; Paul Hajar, Michelle Dube
Mid Atlantic Nelson and Ross Associates Inc., 55 Scenic Dr., Hastings-on-Hudson, NY 10706; 914/478-4408; Bonnie Nelson
Southeast Fox Associates Inc., Suite 275, 6100 Lake Forrest Dr., Atlanta, GA 30328; 404/252-0968; Rick Gower, Jim Manry
Midwest Kingwill Inc., 4433 W. Touhy Ave., Chicago, IL 60646; 312/675-5755; Dave Kingwill, Baird Kingwill
West The Faust Co., 24050 Madison St., Suite 101, Torrance, CA 90505; 213/373-9604; Richard Faust, Doug Faust, Robyn Faust

MPA BPA SELECTED MARKET AUDIT DIVISION

President and Chief Executive Officer, Charles W. McCall; **Executive Vice President, Information Services**, Maurice A. Cox; **Executive Vice President, Software Products Division**, Robert J. Massey; **Executive Vice President, Support Services and Chief Technical Officer**, Alexander B. Trevor; **Executive Vice President, Business Services**, G. Clark Woodford; **Senior Vice President, Business Support and Development**, Barry F. Berkov; **Vice President, Market Development and Services**, John E. Meier; **Vice President, Human Resources**, Judith S. Reinhard; **Vice President, Finance**, Jeffrey T. Weisner.

Copyright©1989 by CompuServe Incorporated, an H&R Block Company. All rights reserved. Contents may not be reproduced in whole or in part without written permission of publisher. *Online Today* (ISSN 0891-4672) is a registered trademark of CompuServe Incorporated. Printed in USA by R.R. Donnelley & Sons Co., Chicago. Subscriptions: United States, AFO—$30 one year; Canada and elsewhere $40 one year. Single copies $2.50 in US, AFO and Canada. Telephone: 614/457-8600. *Online Today* assumes no responsibility for return or safety of unsolicited matter. Direct editorial correspondence to: Editor, *Online Today*, P.O. Box 20212, Columbus, OH 43220. Advertising Reader Service: Reader Service Management Dept., P.O. Box 376, Dalton, MA 01227-0376.

Airlines May Ban Laptop Carry-ons

King Associates

Reaction was swift last winter when crash investigators discovered that the bomb that exploded on a Pan American airplane over the coast of Scotland had been concealed in a "boom box" radio. British officials demanded that all small electronics—from cassette recorders to laptop computers—be banned from all airline flights, either as carry-on or checked luggage.

In the early days of laptops, some airlines briefly barred laptops from cabins (not from checked luggage) out of fear of possible navigation interference. But in recent years, laptop use on airlines has boomed. For business passengers especially, a ban could change the way they do business.

A study group has been established to determine if such a ban is necessary, according to Charles Lafond, a spokesman for the United Nations' International Civil Aviation Organization. Although the panel has no official deadline, Lafond predicted it will release its findings in time for the ICAO's world assembly in September in Montreal.

"It's not an easy problem," Lafond acknowledges. "It puts those concerned with security at odds with those concerned with the needs of passengers. We're hoping we can find a reasonable compromise."

Mel Snyder, president of a New York City marketing firm, says he views travel with his Toshiba 1000 as "an expansion of my business day." He has already thought about keeping laptop computers in Japan and Europe. As for the flights, "I've been agonizing," he says. "I used to board with a bunch of yellow legal pads, and then I'd pay a fortune to have my notes shipped back priority at the end of the flight. I'd be on the phone all the next day trying to help people in New York decipher my handwriting. I'd hate to go back to that."

Snyder charges that a ban on laptops would be "just a gesture to make the airlines look like they're doing something when in fact they're not. A laptop isn't a boom box, with lots of air in the speakers. Anyone who could compress a bomb into a laptop wouldn't have to waste time being a terrorist—he could make a fortune designing electronics." Snyder would rather see the airlines concentrate on better interrogations of passengers.

Laptop users can follow the controversy in the PC Vendor Support Forum (GO PCVEN), the laptop section of the IBM Hardware Forum (GO IBMHW) and the Aviation Forum (GO AVSIG).

—Lindsy Van Gelder

Radio Modem Sends Shortwave

Shortwave radio—a term that instantly conjures up images of sizzling static, clandestine broadcasts and Big Ben's sonorous chimes.

But, like most other technologically oriented pastimes, shortwave listening is now feeling the impact of the computer revolution. These days, the tones of digital communication are vying with music and chat for frequency space, and personal computers are helping to give shortwave buffs a fascinating new view of the world.

For decades, governments and businesses have used shortwave frequencies to relay international telex messages and other forms of electronic data. But, until recently, it was necessary to have expensive and bulky teleprinters and decoders to receive these messages. Now, any personal computer capable of accessing a neighborhood bulletin board can be easily equipped to receive data sent over the airwaves.

The device that connects a computer to a shortwave radio is called, not surprisingly, a radio modem. These units work much like their telephone-based cousins—analog audio tones from the radio are converted into digital electrical impulses understandable to the computer. In addition to ASCII, most radio modems also can decipher Baudot (a pre-computer code still used extensively on shortwave) and the oldest electronic binary code of all—Morse code. Many also can capture fax transmissions.

Prices of radio modems range from about $60 to $300, depending on the features included. The more expensive units allow the computer to transmit back to a radio transmitter (a feature primarily of interest to amateur radio operators).

The spectrum of material transmitted via shortwave is virtually endless. In addition to telex messages, hobbyists also can monitor press services, military communiques, ship-to-shore traffic, international ham operators and their on-air bulletin boards—even fax weather map transmissions. Surprisingly, most transmissions are not encrypted, perhaps because so few people are involved in computer shortwave listening.

Radio modem manufacturers include: Advanced Electronic Applications Inc. (P.O. Box C-2160, Lynnwood, WA 98036; 206/775-7373), MFJ Enterprises Inc. (921 Louisville Rd., Starkville, MS 39759; 800/647-1800) and HAL Communications Corp., (1201 W. Kenyon Rd., Urbana, IL 61801; 217/ 367-7373). Many radio modems support ordinary personal computer communications programs; others are sold with specially tailored software.

For more information on shortwave listening, visit CompuServe's HamNet Forum (GO HAMNET).

—John Edwards

Computer Virus Bills Proposed in Congress

As news of computer viruses capture the headlines, members of Congress are attempting to legislate a halt on high-tech sabotage.

Two bills introduced in the US House of Representatives would give prosecutors tough and specific measures with which to fight computer virus criminals, something they complain is lacking in the Computer Fraud and Abuse Act enacted in 1986.

The Computer Virus Eradication Act (HR 55) calls for prison sentences of up to 10 years and extensive fines for anyone convicted of spreading a computer virus. It also would allow individuals and businesses to initiate civil suits for system damage caused by virus attacks.

Introduced by Rep. Wally Herger (R-Calif.), the bill's purpose is to be a deterrent. Viruses are unique in that they can hide in a computer system without doing damage. If the perpetrator is caught before damage is done, there is not much of a case under current federal statutes.

Herger calls computer viruses a threat to national and economic security. "This legislation would send a clear message to those who plant viruses that they will pay for their destructive actions. If individuals see that they will face stiff penalties for losses they cause, perhaps they will think twice before endangering someone else's property."

The Computer Protection Act (HR 287), introduced by Rep. Tom McMillan (D-Md.), would impose penalties of up to 15 years in prison for individuals who knowingly sabotage computer software or hardware. The bill specifies penalties for any sort of computer sabotage, not just viruses.

While McMillan's bill offers tougher penalties and higher fines, some attorneys say it is more broadly written and open to interpretation. Herger's bill may be more enforceable because it is specific in defining a determination of guilt.

Both bills have been referred to the House Committee on the Judiciary, which is chaired by high-tech advocate Rep. Jack Brooks (D-Texas). Each bill has dozens of co-sponsors, indicating a willingness on Capitol Hill to actively fight the computer saboteur.

For updates on the status of these two bills, consult *Online Today Daily Edition* (GO OLT).

—Cathryn Conroy

President Pushes Education Reform

Last February, in his first major address before a joint session of Congress, President George Bush pronounced that he wants to be known as "the Education President" and challenged Congress to become "the Education Congress."

Although the plans he outlined were not specific, officials at the Department of Education are hopeful that a group of educational technology bills passed by Congress just before the election is a precursor of good things to come for American classrooms.

Frank Withrow, team leader for the technology applications group in the Office of Education Research and Improvement at the Department of Education, sees a movement by the Bush administration toward the development of a technology policy in education, a welcome change from the Reagan years, which he describes as "hostile toward new technology" in education.

Withrow postulates that one impetus for such developments may be John Sununu, Bush's chief of staff. While governor of New Hampshire, Sununu was instrumental in providing computers in classrooms and in offering exceptional computer training for teachers. "He was a pro-tech governor. How much this will translate into the policy of this administration is anyone's guess, but he is knowledgeable about what can happen when technology is placed in the classroom," says Withrow.

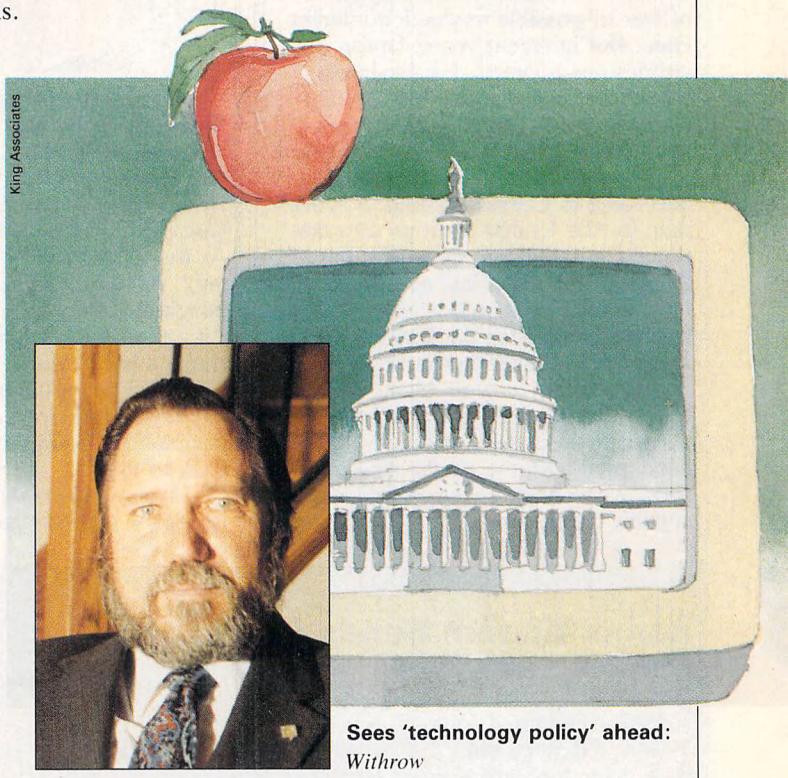
In addition, Withrow believes there are early indications that the secretaries of Commerce, Labor and Education will work together with respect to technology. "This is a time for optimism," he says.

While the 101st Congress may be known as "the Education Congress," it may not be the Republicans who can take credit for it. Several recently introduced bills directly concerned with improving technology in the classroom are all sponsored by Democrats.

For example, officials in the Department of Education are undertaking one of the first educational technology programs since the early 1980s. The Star Schools program, spearheaded in Congress last year by Sen. Edward Kennedy (D-Mass.), provides $20 million for a science, math and foreign language program in the nation's high schools. This project is unique because it attempts to offer specialized classes online, such as advanced German, calculus and physics. Using modems, computers and satellite link-ups, a course can be taught from one location and beamed to hundreds of classrooms in schools that would otherwise be unable to offer it.

Students participate interactively in the electronic classes through a two-way audio satellite link between the teacher and students. Homework is given by the instructor and completed by the students via electronic mail.

For more information on the latest developments in educational technology, consult the experts in the Education Forum (GO EDFORUM).



Sees 'technology policy' ahead: *Withrow*

Foundation Targets Computer Illiteracy

As you may have observed, even at this late date, not all people are computer savvy.

One organization that is dedicated to eradicating computer illiteracy is the Computer Learning Foundation. This nonprofit group, based in Palo Alto, Calif., will receive $1 million in funding this year from IBM, Apple Computer, Tandy, Commodore International and several leading software publishers.

The Computer Learning Foundation distributes books, lesson plans and posters to children, adults and teachers. It also sponsors Computer Learning Month, an awareness program that reached some 60 million people last October, according to foundation statistics. In addition, more than 620 computer dealers nationwide contributed to Computer Learning Month by distributing information about computers to the public.

The foundation's most ambitious project, however, is "School Vision," a weekly public broadcasting television series aimed at teachers and school administrators. "We view 'School Vision' as an ideal way to get teachers involved with computers, to reduce their anxieties and to help them accept new technology," says Leora Langs, the foundation's marketing operations manager.

The foundation started producing the 15-minute series last February and is still waiting to see how it will be received. "PBS stations around the country can pick it up, and we're hoping for an enthusiastic response," says Langs. Each "School Vision" episode shows how specific computer products can be used to improve the learning process and make it more enjoyable. "It's a way for teachers to communicate with other teachers in a way they can understand," says Langs.

To further its goal of teacher-to-teacher communication, the foundation is requesting videotapes from schools showing how computers are being used in their classrooms. "We think teachers are much more willing to listen to another teacher than a supposed computer expert," notes Langs. Schools submitting programs aired on the series will receive a free software package as a token of thanks. "We also intend to honor outstanding teachers with certificates and prizes," says Langs.

For more information on "School Vision" and other foundation projects, contact the Computer Learning Foundation, P.O. Box 60400, Palo Alto, CA 94306; 415/327-3347.

On CompuServe, education and computers are discussed in the Education Forum (GO EDFORUM).

—John Edwards

Electronic Hubs Connect Communities

Do you need to renew your driver's license, pay a parking fee or apply for a permit to build a deck onto your home? Perhaps you want to apply for volunteer work at the local hospital or send a complaint to your city council representative.

It soon may be possible to do all this and more from your personal computer, according to the Videotex Industry Association. Because of instant communication links, local governments will be able to offer citizens a kind of electronic hub for easy access to such services as checking mass-transit schedules, reserving a picnic area in the park or paying taxes conveniently.

"Cities and counties have become diversified service organizations and community information centers," says Robert L. Smith Jr., executive director of the Rosslyn, Va.-based VIA. However, while they have more frequent and direct contact with citizens than do federal or state governments, most local jurisdictions do not measure up when it comes to managing their diverse roles as service *and* information provider.

Now the VIA and Public Technology Inc. have joined forces to launch a unique research and demonstration project to explore how the interactive videotex medium can help local governments provide citizens with the up-to-date information they need.

The project involves 20 industry and local government representatives. As they work together, it is hoped that industry will help government resolve barriers in information delivery, while government will help industry tap this new market.

For information, contact the Videotex Industry Association, 1901 N. Fort Myer Dr., Suite 200, Rosslyn, VA 22209; 703/522-0883.

High-tech Hopes for High-definition TV

One hint that high-definition television might be something extraordinary is that the Soviet Union has offered to serve as a neutral testing ground for the United States, Japan, Korea and France as their researchers try to beat one another to market in a lucrative high-tech race. Perhaps most incredible is that the idea was accepted with enthusiasm.

Technologically, HDTV will be a stunning accomplishment, providing home televisions with pictures that rival the quality of motion pictures. It also will be an amazing financial coup for the winner: As much as $100 billion is said to be at stake in the next decade alone.

But more than improving the picture on the evening news, HDTV promises equally incredible developments for computers and the quality of monitors and satellite communications. In addition, it will create lucrative new markets for the components of the sets, including semiconductors, fiber optics and flat-screen displays.

One exciting potential is that HDTV could evolve to actually become a computer. Craig Fields, deputy director for research at the Defense Research Projects Agency, told Congress he predicts that current leaders in the computer industry will play a major role in the HDTV industry.

The United States is lagging behind Japan and Europe in HDTV development because the high-tech parts needed to create the sets—high-capacity memory chips, advanced video tubes, video cassette recorders and editing equipment—were abandoned long ago by US manufacturers. In an attempt to catch up, the US federal government is offering grant money to HDTV researchers and is considering loosening the federal anti-trust laws to allow for cooperative ventures. In addition, tax breaks and low-interest or government-guaranteed loans for HDTV manufacturers also are being considered.

Experts disagree on whether these measures will help the fledgling US industry. Some believe that too much government participation might lead to wasteful projects and higher costs for American consumers, notes *The Washington Post*. However, most believe that HDTV is key to the United States' technological advancement.

—Cathryn Conroy

How to Get the Most Out of CompuServe

Tips For Computing on the Road

by Charles Bowen and David Peyton

Computing on the road was not always easy. In the pre-laptop days, in fact, getting online from a temporary location exercised not only your electronics ability, but also your knowledge of telephones and maybe your diplomacy with the hotel staff.

We still talk about the night seven years ago when we were all online on the CB Simulator chatting with an old friend, Texan Lee Ligon, who was on a business trip. Somehow he had managed to log on from his hotel room, and we all wanted the details.

Already on the market in those days were portable or *transportable* computers. (Actually, they were heavy, boxy affairs that we later uncharitably dubbed "luggables.") Besides being a tad pricey for our set, these first commuting computers seemed geared more for the business public. Furthermore, to the online world, the truly gifted telecomputerist was the one who traveled light.

For instance, when Lee traveled, he packed only his modem, a few wires and tools and a small, self-contained keyboard (a Tandy color computer or a Commodore 64, perhaps). On the other end of the road, he improvised, using whatever the hotel room provided. With a screwdriver, alligator clips and some black electrical tape, he hooked the keyboard to the room's TV set and then linked in the telephone.

The memorable part of that evening's online chat came when Lee discreetly informed us that one of the hotel's housekeepers had come into his room to turn down the bed. She looked at how Lee had re-arranged the furniture so he could sit close to the television set. Then with a start, she also noticed he was typing words that appeared on the TV screen.

Resisting the urge to ask Lee what the heck he thought he was doing, the woman instead made several extra trips behind Lee's chair to steal peeks at the screen.

On one pass, Lee looked up and smiled, taking note of the name tag pinned to her uniform. When her back was turned again, he shared the name with his online cronies. Then on her next trip by the screen, the maid herself was greeted by incoming messages like these:

"Hi Doris! Good to see you again!"

"Uh, pardon me, Doris, but you think I could get an extra pillow?"

"Where's the soft drink machine, Doris?"

That did it. Once the computer started getting personal, she demanded an explanation. It took a few minutes for Lee to describe the wonders of real-time conferencing and how we were indeed real people located around the country. After that we even chatted with Doris herself for a moment—electronic testimony for the defense, as it were.

Meanwhile, another online friend was not as successful when he tried to log on from a hotel room. He had the necessary tools and equipment, but he did not have the proper access phone number.

Later, with embarrassment, he logged on at home to commiserate with his online friends: He had gotten everything hooked up only to realize that he did not know the *local* CompuServe access number for the city he was visiting.

He had tried to find it in the hotel's local phone book and he had called directory assistance, but the operator said no business called "CompuServe" was listed. If desperate, he could have called long-distance to his local access number at home, logged on and used CompuServe's online searchable database of phone numbers around the country (GO PHONES) to find the correct phone number.

The problem with access numbers was rather like a Catch-22. CompuServe's Phones database enables searching for numbers in specified states or by area codes. The hitch is that you have to be online to use it.

For this reason, it always has been important for the traveling computerist to prepare for a trip by using the Phones database to get the necessary access numbers in advance.

Even as the hardware and software improved—laptop computers, faster modems, expanded networks, smarter terminal programs—the process for getting the vital information to make the link remained the same: you had to *be* online to *get* online.

Until now.

Earlier this year, CompuServe Network Services introduced an important new menu-driven online feature to assist in locating access numbers. Best of all, it can be reached from anywhere with a toll-free modem call to 800/423-8011, making it the biggest boon to on-the-road computing since the alligator clip.

When prompted for Host Name, type PHONES. This causes the system to greet you with this menu:

```
**********************************
Welcome to the CompuServe Phone
Number Access area: a free service of
the CompuServe Information Service.
This area gives you access numbers for
the CompuServe Information Service
and allows you to report any problems
you may be encountering with an
access number.
Press <CR> for more !
CompuServe                PHN-13
1 Find Access Numbers
2 Report Access Number Problems
Enter choice !
**********************************
```

Artists Only

The menu looks much like others on CompuServe. If you select Option 1, the following appears:

```
**********************************
There are surcharges associated with
the use of all network access telephone
numbers. You will have the opportunity
to view access instructions if a supple-
mental network is selected.
   *** Important Note *** This pro-
gram gives you the best two numbers,
based on the number you are dialing
from. While this is usually the least
costly method of accessing, this will not
hold true in all cases. You should check
with your local phone service company
if you are unsure.
   For additional access numbers, type
GO PHONES at any CompuServe Infor-
mation Service prompt. So that we may
support others, you will be logged off
after receiving your two access
numbers.
   Press <CR> for more !

CompuServe 800PHN
Baud Rate
1 300—1200 Baud
2 2400 Baud
Enter choice !
**********************************
```

After selecting the baud rate for the number needed, the system provides two numbers and automatically logs you off, returning you to the Host Name prompt. (If you need to return for more network information, type PHONES at this prompt.)

Note that the list includes two local numbers, the name of each city, a code identifying the number as a CompuServe direct line, and codes identifying other-than CompuServe lines.

Option 2 provides an opportunity to report access number problems. Supply the requested information at the prompts to aid CompuServe in determining the problem. Then, select from the following problem categories:

```
**********************************
 1 Ring but no answer
 2 Busy
 3 Operator message
 4 No response after connect
 5 Unexpected disconnect
 6 Wrong baud rate on autodialer
 7 Garbage/Noise on line
 8 Data loss
 9 File transfer failure
10 Other
Enter choice !
**********************************
```

Continue to follow the prompts. CompuServe's Network Control will address the problem.

Finally, speaking of logging in, the 800 number is not the only way to reach network assistance service. You also can access it through any CompuServe access number. Just dial the number through which you usually connect to the system and, at the Host Name prompt, type CPS. Type 74,10 for the User ID number and PHONE for the password.

If you prefer a voice response, dial 800/635-6225 to talk to a CompuServe representative. He or she will give you the phone number that you need.

Charles Bowen is a contributing editor of Online Today. *His CompuServe User ID number is 70007,411.*

MORE FOOTBALL!

GET OVER 700 FOOTBALL FILES WITH YOUR COMPUTER AND MODEM

Cover The Field With

COMPUTER SPORTS WORLD

America's Leading sports database.
Over 5000 files of computerized information
AT YOUR FINGERTIPS!
24 Hours - Up To The Minute
• Scores In Progress • Injuries •
• Transactions • Matchups • Team Logs •
• Fantasy Football Stats • Weather •

Call now and ask for your free brochure and demonstration

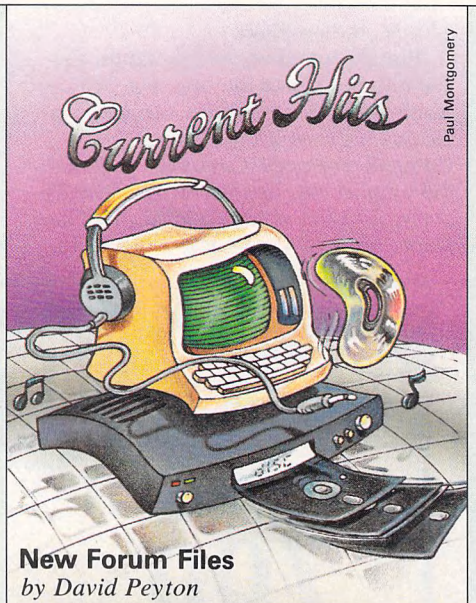
1-800-321-5562

CSW ©

A Service of The Chronicle Publishing Company, San Francisco, CA

GO OLI for more information.

U P L O A D S



New Forum Files

by David Peyton

The libraries in CompuServe's forums are filled with thousands of files. The following are a few of the files uploaded in recent months. For a larger, more up-to-date list, check the weekly "Uploads" columns in *Online Today Daily Edition* (GO OLT-3700).

AMIGA ARTS FORUM
(GO AMIGAARTS)

MaxiPlan Spreadsheet—Mortgage2, a spreadsheet designed to operate with MaxiPlan 500, calculates your payment. Helps with minor tax calculations. File MORTGA.ARC in Library 10.

AMIGATECH FORUM
(GO AMIGATECH)

DMouse Program—Matt Dillon's DMouse program, a utility that can run from the startup sequence from CLI. File DMOU11.ARC in Library 13.

ASHTON-TATE FORUM
(GO ASHFORUM)

Duplicate Finder—A program that enables you to find duplicate files fast. Checks up to 99 times on a user-defined string. Will print or mark your double records and locate exact, likely and possible duplicates. File FLAG.ARC in Library 2.

ATARI ST ARTS FORUM
(GO ATARIARTS)

Tester—Quizzer, which allows a parent or teacher to print a quick math quiz on any parallel printer, offers 28 addition, subtraction, multiplication and division problems. No printer codes required. File QUIZZE.ARC in Library 2.

COLOR COMPUTER FORUM
(GO COCO)

Air Traffic Controller—An air traffic controller simulator written in BASIC and ML. Runs on any CoCo with at least 64K of memory. Files ATC.BAS, ATCMN.BAS, and ATC.DOC (documentation) in Library 3.

COMMODORE ART, GAMES AND GRAPHICS FORUM
(GO CBMART)

Auto Adventure—An SDA file adventure game in which your car breaks down in the middle of the desert and mysterious things happen. The game branches in accord with your commands and inventory. File DESERT.IMG in Library 9.

CONSUMER HEALTH FORUM
(GO GOODHEALTH)

Calorie Counter—Version 2 of Slimmer, a program that calculates ideal weight and calorie count, tracks daily weight and calorie intake, and plots the results. It also provides extensive look-up food tables that allow selection and counting/scaling of individual items. File SLIMME.ARC in Library 10.

CP/M FORUM
(GO CPMFORUM)

CP/M Software Dealers—An extensive list of distributors of commercial CP/M software. File CPMSRC.LZT in Library 2.

EDUCATION FORUM
(GO EDFORUM)

Intelligent Writing—Text from a paper by Paul Levinson of the New School for Social Research/Polytechnic University, who says that the electronic "liberation" of text through the use of word processors, hypertext, hypermedia and electronic conferencing can bring about "intelligent writing" as described by Socrates long ago. Files LIBER.TXT and NOTES.TXT (references cited in the article) in Library 11.

FLORIDA FORUM
(GO FLORIDA)

WDW Info—The latest version of the basic Walt Disney World information file. Contains WDW Hotel rates, World Passport prices, Orlando weather, a phone number list, and more. File WDWINF.TXT in Library 13.

GENEALOGY FORUM
(GO ROOTS)

Genealogy Bookstores—A list of genealogy bookstores and publishers that have a significant genealogy business. File BOOKST.ORE in Library 1.

GRAPHICS SUPPORT FORUM
(GO GRAPHSUPPORT)

Images for WordPerfect—Program enables you to convert a CompuServe GIF graphic image file into a WordPerfect 5.0 WPG image file. Documentation included. File GIF2WP.ARC in Library 4.

IBM APPLICATIONS FORUM
(GO IBMAPP)

Speech Simulator—TRAN, a text-to-speech program, can read textfiles and take input from the keyboard, translate normal English spelling to phonemes and sound out each phoneme through the speaker. File TRAN.ARC in Library 7.

IBM HARDWARE FORUM
(GO IBMHW)

Word Squasher—Version 2.8 of Docsmash, a program that squashes four pages of text onto each printed sheet of paper. Great for program manuals downloaded from a bulletin board. File DOCSMA.ARC in Library 2.

IBM NEW USERS' FORUM
(GO IBMNEW)

Haunted Adventure—*Skullduggery*, a text adventure game with mystery, horror and adventure. Explore the haunted mansion of a deceased royal family. File SKULL.ARC in Library 3.

IBM JUNIOR FORUM
(GO IBMJR)

Creepy Text—*Jr Creep III*, a text adventure game for the PCjr. Creep to the Christmas tree and peek at your presents without getting caught. Three-voice Christmas music. Will work only on a PCjr with cartridge BASIC. File CREEP.ARC in Library 5.

INVESTORS' FORUM
(GO INVFORUM)

Lots of Symbols—An 80-column ASCII textfile of 1,169 tickertape symbols of major New York Stock Exchange stocks, alphabetized by symbol and company name. File NYSETK.TXT in Library 1.

LEGAL FORUM
(GO LAWSIG)

Make Your Will—Updated version of a plain-text shareware legal form will from *Old Lawyer's Tricks*. Enables you to write your own will to present to a lawyer for confirmation that it is legally written. File WILKIT.TXT in Library 6.

MAUG APPLE VENDORS FORUM
(GO APVENA)

Graphic Calendar—An improved version of CALENDAR.SIT, an external area program that maintains a graphic calendar. User can page backward or forward through the calendar by year or month, click on a day and have that date returned to 4D, set fonts used by

the calendar and more. Calendar will scale itself to fit your external area. File CALEN2.SIT in Library 2.

MAUG APPLE II/III FORUM
(GO APPLETWO)

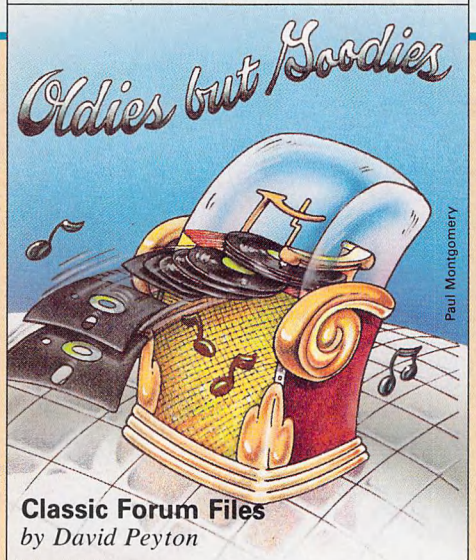
CDA, NDA Installer—ACC.CHOOSER, a new desktop accessory for the Apple IIgs that provides the ability to install both CDA and NDA from within the applications you use. File ACC.BQY in Library 4.

MAUG HYPERFORUM
(GO APPHYPER)

Freeform Outliner—KBase, a tree database designed as a freeform outliner that can handle outlines and other freeform knowledge. It can import and export files and make records invisible. File KBASE.SIT in Library 8.

MAUG MAC FUN FORUM
(GO MACFUN)

Basketball—A stand-alone version of *Basketball*, the NBA simulation game for the Macintosh. Includes a full Mac interface with menus and team buttons. File BASKET in Library 3.



Classic Forum Files

by David Peyton

Following is a list of files uploaded to CompuServe forums more than a year ago that have won the right to be called "oldies but goodies," either by the recommendation of forum administrators or by the number of downloads each file has received.

AMIGATECH FORUM
(GO AMIGATECH)

Padding Remover—Fixobj, a utility for the Amiga that removes the XMODEM padding on the end of a file without knowing the byte count. File does not have to be chopped to run. File FIXOBJ.EXE in Library 4.

APPLE II/III FORUM
(GO APPLETWO)

ProSEL Help—A textfile that explains how to use multiple subject-oriented ProSEL menus to organize a hard disk or other large storage device containing many programs. Operates under ProSEL CYCLER. File MENU.BNY in Library 1.

ASTRONOMY FORUM
(GO ASTROFORUM)

Star Maps—For IBM PCs with color capability, this BASIC program draws real-time, real-place star maps with polar or azimuth masks. Files ASTROL.BAS and ASTROL.DOC (documentation) in Library 7. Files STARS1.DAT through STARS4.DAT, in the same library, also are needed.

ATARI PRODUCTIVITY FORUM
(GO ATARIPRO)

Talking Terminal—BoardTerm talking terminal program for Atari 16-bit computers. File BRDTRM.ARC in Library 2.

ATARI ST ARTS FORUM
(GO ATARIARTS)

Darts for Atari—The game of darts programmed for GFA BASIC. File DARTS.ARC in Library 2.

AUTODESK FORUM
(GO AUTODESK)

AutoCAD Fonts—AutoCAD font files for gothic, bold, triplex and other non-standard fonts. File FONTPA.ARC in Library 1.

BORLAND APPLICATIONS FORUM
(GO BORAPP)

Mysteries of DEBUG—A textfile that explains the mysteries of DEBUG and how to use the popular MS-DOS program to edit COM files. Particularly useful when asked to add a patch to a program. File DEBUG.LTR in Library 0.

BROADCAST PROFESSIONAL FORUM
(GO BPFORUM)

Free-lance Advice—*How to Succeed in Freelancing Without Being Trying*, a primer on how you can get into the free-lance areas of film and television. File FRLNCE.TXT in Library 5.

COLOR COMPUTER FORUM
(GO COCO)

Coco *Space Invaders*—A *Space Invaders*-type game for the CoCo III. File HAWKS.BIN in Library 3.

COMMODORE ART, GAMES AND GRAPHICS FORUM
(GO CBMART)

Commodore CAD—CAD version 4.0, a full-featured drawing and drafting program for the Commodore 64. Files CAD401.BIN, CAD402.BIN and CAD403.BIN and CADDC4.DOC (documentation) in Library 12.

GAMERS' FORUM
(GO GAMERS)

Flying Arcade—A flight arcade/action game for IBM PCs and compatibles with CGA graphics. Destroy enemy forces before they destroy your planes. File FLIGHT.ARC in Library 7.

IBM APPLICATIONS FORUM
(GO IBMAPP)

File Converter—XWORD, a program for IBM PCs and compatibles that converts files between different word-processing formats. Allows user to replace any string and save files for reuse. File XWORD in Library 2.

IBM NEW USERS' FORUM
(GO IBMNEW)

Fifi's Pleasures—*Madam Fifi's House of Ill Repute*, an X-rated text adventure game for IBM PCs and compatibles. File FIFI.BAS in Library 3.

INVESTORS' FORUM
(GO INVFORUM)

Bond Analyzer—A public-domain program for IBM and MS-DOS compatibles that provides a menu-driven bond analyzer for corporates, Treasury Bills and Treasury Bonds. Provides tax-free equivalents and T-Bill analysis. File BONDS.ARC in Library 2.

MAUG MAC FUN FORUM
(GO MACFUN)

Mouse Dexterity—A game that allows you to build your "mousing" dexterity on the Macintosh as you get points by attacking the office icons that move around the screen. If you have the MacinTalk speech driver on the same disk, it gives spoken feedback. File ATTACK.BIN in Library 3.

TANDY PROFESSIONAL FORUM
(GO TRS80PRO)

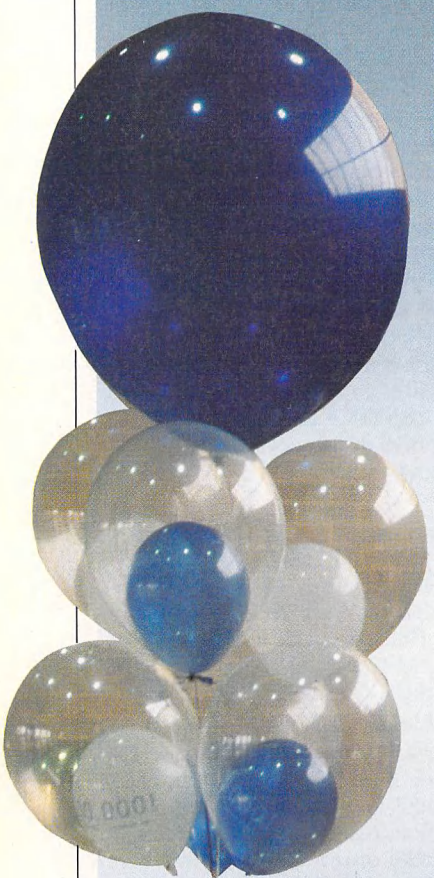
Helicopter Game—An arcade-style helicopter mission game for IBM PCs and compatibles with four levels of difficulty and missions to complete. Cursor controls are 2-4-6-8 on the number pad but controls can be redefined within the program. Score saving. Documentation included. File COPTER.ARC in Library 6.

David Peyton co-authored How to Get the Most Out of CompuServe. *His CompuServe User ID number is 76703,244.*

ONLINE YESTERDAY TODAY AND TOMORROW

The CompuServe Information Service Celebrates Its 10th Anniversary

by Carole Houze Gerber

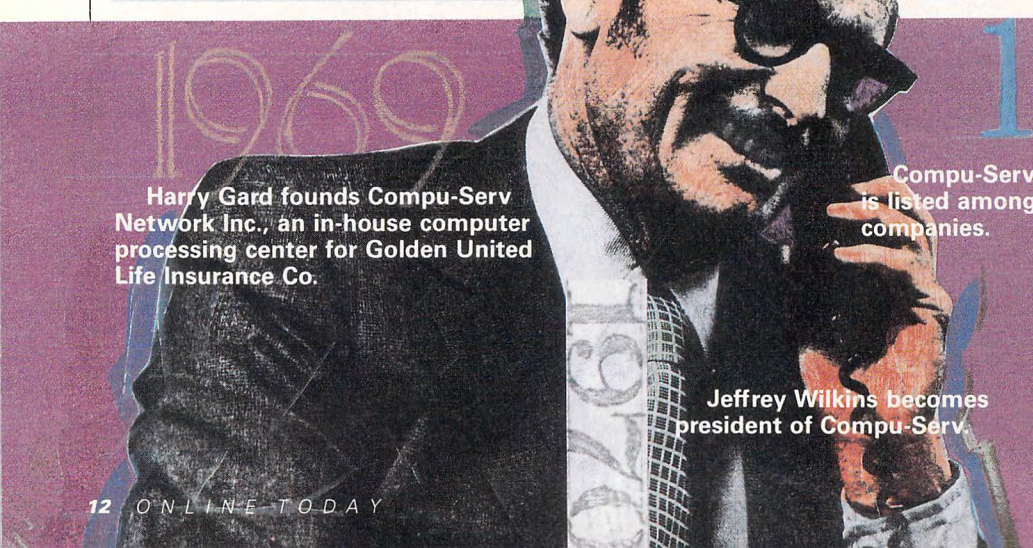


The physical environment is pure high tech: smoked-glass windows, modern furnishings and a computer on nearly every desk leave no doubt about the nature of the business.

But wait a minute! There's a playful ambiance about the place today. The lobby, otherwise dressed for success in tasteful furniture and huge live plants, also holds masses of helium-filled balloons. Hundreds of them stamped with "500,000!" are scattered throughout the seven-building Columbus complex. Balloons also float in the Dublin and Westbrooke facilities. They are management's way of announcing on this gray March day that subscriber number 500,000 has signed on with the CompuServe Information Service.

The purpose of the cheerful but decidedly low-tech balloons is explained via a high-tech medium: CompuServe President Charlie McCall wrote an InfoPlex message simultaneously sent to all employees' electronic mailboxes, thanking associates for their parts in making CompuServe a success and asking: "Who could have predicted in 1979 that a fledgling computer information service would become the world's largest online information service in just 10 years?"

Well, Alexander Trevor, for one. Trevor, executive vice president of Support Services and CompuServe's chief technical officer, knew the company was onto a great idea when he was asked by former CompuServe president and CEO Jeffrey Wilkins in 1979 to find a way to distribute software to personal computer owners so they—as business users had been doing for 10 years—could also readily access CompuServe. "At that time, personal computers were fairly new," says Trevor. "Radio Shack Model 1 and a few other brands were just coming out. A lot of people didn't know what to do with them."



1969

Harry Gard founds Compu-Serv Network Inc., an in-house computer processing center for Golden United Life Insurance Co.

1972

Compu-Serv, with more than 425 accounts nationwide, is listed among the nation's leading computer service companies.

Jeffrey Wilkins becomes president of Compu-Serv.

Learning from Others' Mistakes

In March 1980, Trevor traveled to London to attend a world trade show on videotex. His task was to see what the British, who were marketing a videotex product called Prestel, were doing with online services. What Trevor saw was both discouraging and enlightening. The British Prestel system and a French product called Antiope, which had the tiny videotex market cornered in Europe, required users to purchase special terminals that, unlike personal computers, couldn't be used for other purposes.

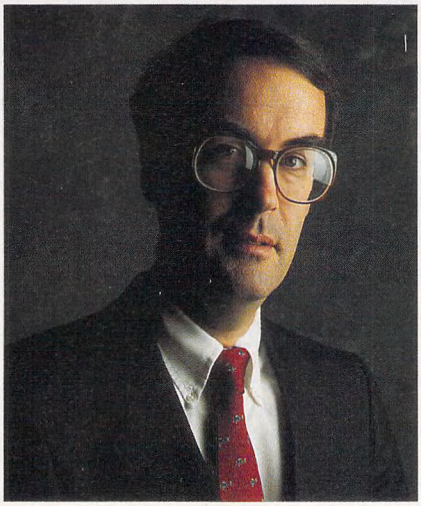
Prestel, especially, had major problems with its graphics, which were jarring to look at and hard to read. Even worse was that any upgrade in Prestel's protocols would mean that its terminals in subscribers' homes could no longer receive the data. Delivery of the data that *was* available could also be a headache.

"The Prestel system was designed with host computers in each city that offered the service," recalls Trevor. "But the databases on the host computers differed, so if a user needed information that was not on the host in his city, a mainframe in another city would have to copy the data, send it to the mainframe in the user's city, and then that host computer would finally send the data to the person who needed it."

Trevor returned from London brimming with ideas on what *not* to do: Don't slow things down with excessive graphics, don't offer a service that can be used with only one type of hardware, and don't offer a service so inflexible that changes in CompuServe's hardware would send the end-user into a tailspin.

He also had some insightful plans for how to do things right. "The concept I came up with was to move the user to the host computer where the database was, instead of transferring data from host to host and then to the user," Trevor explains.

"In other words, we decided to take the user to the information instead of taking the information to the user," he says. "When a user logs onto



Taking the information to the user: *Trevor*

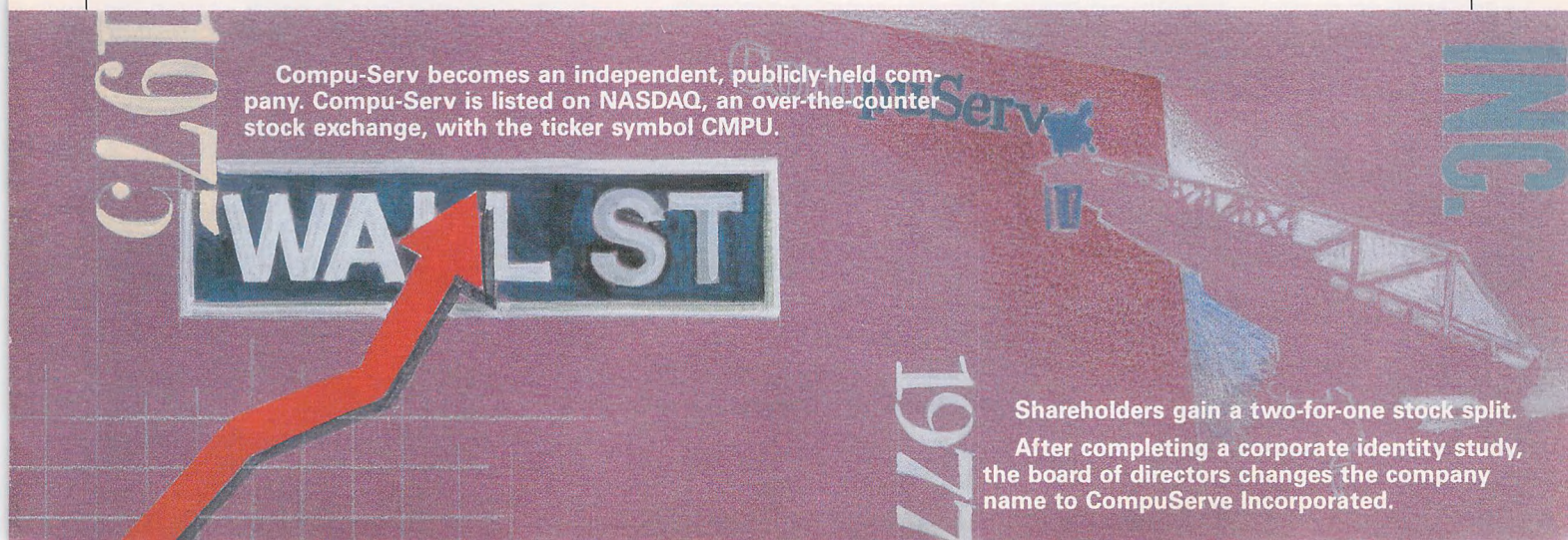
CompuServe and selects an option from the menu, he or she is automatically connected with the host on which the needed data is stored. If during an online session he later selects another item that's on a different computer, he is quickly switched over to that host. Because it's done so quickly, today's user is unaware of the change. In the early years, when it was a slower process, a transfer message told subscribers what was taking place."

This switching between computers was developed specifically for CompuServe Information Service subscribers. Business users who logged on were connected with a mainframe on which all their data was stored, so there had been no need previously for what programmers dubbed the "yo-yo" switch. Because Information Service subscribers would share the available memory on these machines with business customers, the yo-yo would maximize the space available to them.

CompuServe was able to instruct its mainframes to do whatever was needed because, unlike other fledgling online services, the company had already developed its own packet-switching network to serve the timesharing and batch-processing needs of its business customers. (Briefly, CompuServe's packet-switching network uses dedicated phone lines, satellite links and hardware called communications processors to route data as fast as possible between host mainframes and subscribers' personal computers.)

"Most other companies had to rely for communications capabilities on TYMNET, Telenet or other commercial packet networks that had no vested interest in modifying their networks," Trevor explains. The other companies made some other big mistakes, as well. Mistakes that cost them—if not their shirts, at least their socks in these early scramblings for the home videotex market. CBS, Times-Mirror, Knight-Ridder and a number of other companies invested in this new technology. Most lost money.

CBS invested $40 million in a consumer videotex service called Trintex, which is now available in certain cities as Prodigy, before pulling out in 1987. Times-Mirror invested four years of research and millions of dollars in a home videotex service called Gateway that offered online news, banking, shopping, and other capabilities in Los Angeles and Orange County, Calif. In Miami, Knight-Ridder spent millions of dollars to provide a similar service called Viewtron that could display


1976
Compu-Serv becomes an independent, publicly-held company. Compu-Serv is listed on NASDAQ, an over-the-counter stock exchange, with the ticker symbol CMPU.
WALL ST
1977
Shareholders gain a two-for-one stock split.
After completing a corporate identity study, the board of directors changes the company name to CompuServe Incorporated.

full-color catalog pages of merchandise.

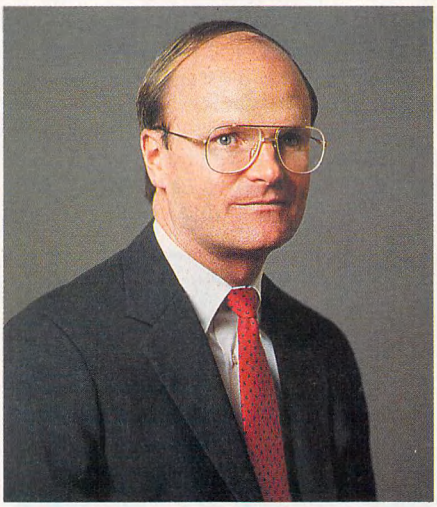
The catch to both the Gateway and Viewtron services was that subscribers first had to buy expensive terminals, then pay to get online to look at things they would otherwise buy from free catalogs or read about in newspapers. Gateway and Viewtron quickly bombed. So did a New Jersey-based home videotex service called Venture One and a Chicago-based service called Keyfax.

What Did Personal Computer Owners Want?

At first, nobody knew what personal computer owners wanted—including personal computer owners. But things they ended up *not* wanting, such as home banking and most online newspapers, was sometimes what they told market researchers they *did* want. It was all very confusing. And, as Times-Mirror, Knight-Ridder and other videotex venturers quickly learned, very expensive, too.

A Ridgewood, N.J., consumer survey conducted for Venture One showed, for example, that a successful videotex service should provide up-to-date information, be interesting to read, enjoyable to operate, and have a strong local orientation in news and sports coverage. Sounds just like a good newspaper—a product that costs 50 cents, requires a fifth-grade reading level and the motor skills of a small child to operate. Consumers were willing to participate in exciting new research by having expensive terminals installed in their homes. Most said it was great stuff—until they were asked to pay for it themselves.

Because it was already providing business services nationally, CompuServe didn't get sidetracked into trying to meet local needs. Instead, the company looked for services that would have the



Ease of use attracts subscribers: *McCall*

variety and broad appeal necessary to attract any subscriber who could log on through a local phone call in the 175 cities then connected into the packet-switching network.

Another plus was that subscribers did not have to buy special terminals. They could use their computers, equipped with modems and communications software, to access the service. "We were able to accommodate the 32-character computer screens of that era," explains CompuServe President Charlie McCall, who is not at all surprised at the growth of the Information Service. "Instead of expecting subscribers to do the adapting, we adapted the Information Service to meet the expanded capabilities of later personal computer models. This ease of use is one big reason we attracted such a broad audience of subscribers."

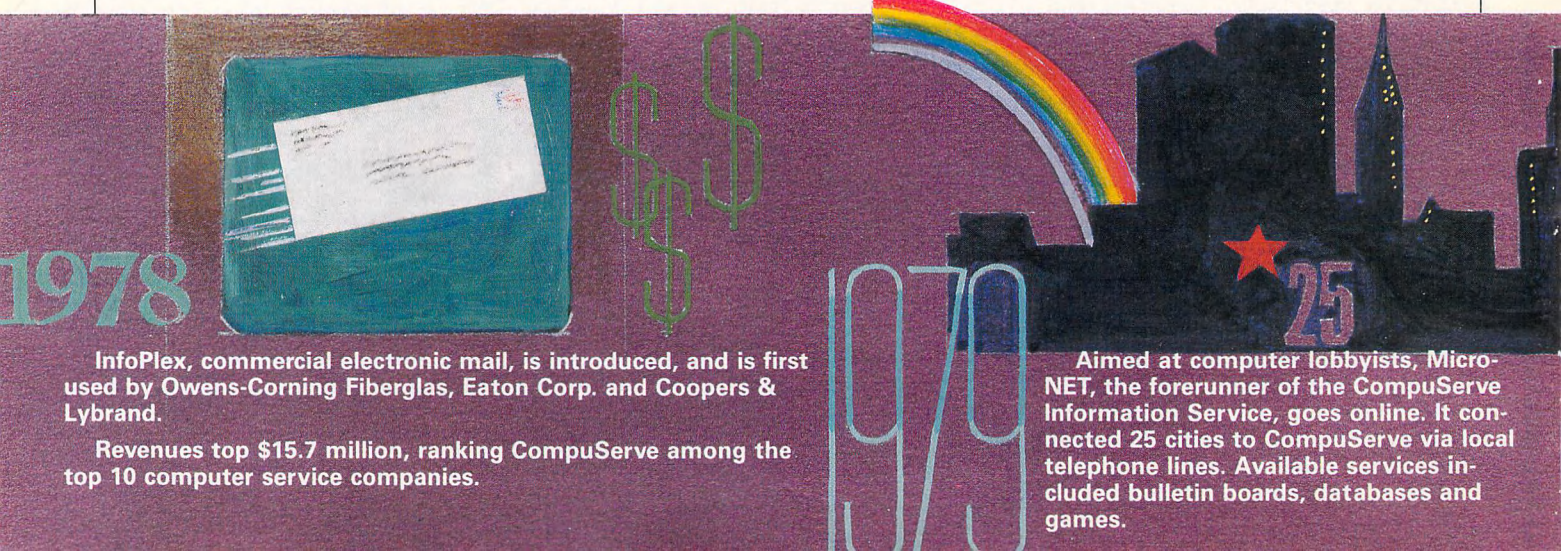
This is not to say there wasn't trial and error involved in figuring out what services to offer. "Early services were developed by 'cut and try'," recalls John Meier, vice president of Market Development and Services. "If you had a product idea and could put it together, we put it up on the Service. It was deemed successful if people used it. Primary research to determine product direction wasn't very effective. Most people didn't understand enough about computers and online information to know what they wanted," adds Meier, who served as the first general manager of the Information Service. "We went by intuition in the early days."

Their intuition was on target in many cases. Information Service executives guessed that there might be an online market for news and a market for shopping, too. They found that subscribers would pay to shop online, but only for certain types of products and only if the price was right. Subscribers would pay to read, too, but the information had to suit specific needs and interests. In addition to information available through properly packaged news services, a major need expressed by many subscribers was—and continues to be—the desire for information and advice about computer products.

That's why hardware and software support forums representing virtually all major personal computers, manufacturers and software programs continue to be popular. The forums provide subscribers something they cannot find elsewhere: access to the biggest and best collection of computer-related information assembled anywhere, along with support from the world's largest personal computer user community.

How Can the Service Best Deliver Information?

MicroNET, forerunner of the CompuServe Information Service, had been up and running for several months when Trevor went to the Viewdata '80 show in London and saw firsthand why European videotex was in trouble.



InfoPlex, commercial electronic mail, is introduced, and is first used by Owens-Corning Fiberglas, Eaton Corp. and Coopers & Lybrand.

Revenues top $15.7 million, ranking CompuServe among the top 10 computer service companies.

Aimed at computer lobbyists, MicroNET, the forerunner of the CompuServe Information Service, goes online. It connected 25 cities to CompuServe via local telephone lines. Available services included bulletin boards, databases and games.

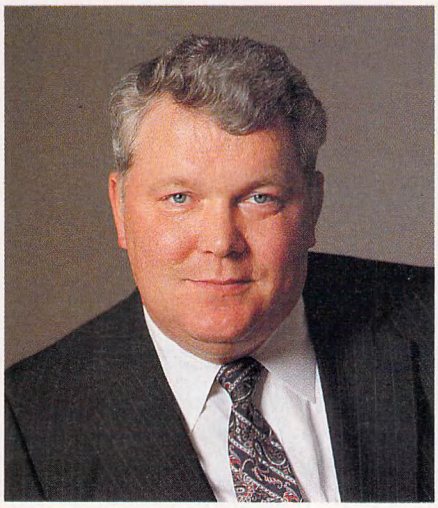
Because CompuServe was already an established and profitable company, there was no desperate push to jump in with teeth bared to grab at that potentially lucrative but elusive home market. Why not test the waters with people who already owned computers and knew how to use them?

Before MicroNET made its debut on July 1, 1979, it was tested for two months with the Midwest Affiliation of Computer Clubs, whose 1,200 members received free use of the system in exchange for their ideas on how it could be improved. "Primarily, we wanted to see if the idea was viable," recalls long-time CompuServe associate Russ Ranshaw, principal software engineer for product development. He adds: "We also needed to test the system in order to make a few changes to the operating environment. Plus, we wanted their ideas on what services personal computer owners wanted and needed."

Ranshaw, who played a key role in the development of MicroNET, got feedback from the computer club members via phone calls and also through allowing them access to InfoPlex, which had recently become available to business customers. "One of the first pieces of software for MicroNET was a community bulletin board for computer hobbyists to buy and sell things," he recalls. "Based on their suggestions, we expanded it to include general notices, and we also added a private communication capacity."

While Ranshaw was "up to my ears in COBOL trying to get the customer billing software to work," others set about figuring out how to take MicroNET beyond the hard-core (and very helpful) computer club hobbyists, who naturally found the system to be a piece of cake, to the computer phobes of the real world.

"One way we did this was by writing our own terminal emulator software, VIDTEX, which enabled personal computer keyboards to be used as smart terminals that, when hooked up to a modem, could send and receive text and carry out other functions," Trevor explains. "Initially, we gave away the software to the computer club members who helped us test the system. VIDTEX is still a popular smart-terminal program, although it's no longer free, because it offers capabilities above and beyond access to CompuServe."



Early intuition on target: *Meier*

Because the concept of offering online services to personal computer owners was so new, little money was allocated to advertise MicroNET's debut. "We begged mailing lists from computer clubs and user groups for our direct-mail ads," recalls Meier. "Because we could afford their low rates, we also placed small ads in obscure—and now long-gone—computer magazines such as *Kilobaud Microcomputing*. It was a fairly modest effort."

Growth during the first couple of years was far from explosive. By the summer of 1981, about 10,000 subscribers were online with the CompuServe Information Service, which by now was offering electronic messaging via EMAIL, the forerunner of EasyPlex, along with more games and financial information. (The name was changed from MicroNET in the summer of 1980 to reflect the information focus of the Service.)

Also offered in an attempt to broaden appeal to families was information on such topics as recipes, nutrition, meal planning, home improvement and self-development. Families weren't interested, so most of these early products were dropped.

Infinitely more successful was the two-year newspaper experiment CompuServe conducted with the Associated Press between 1980 and 1982. The purpose of the project, which put online 11 electronic editions of major newspapers, was to test consumers' receptivity to receiving news through this medium.

The experiment was organized with CompuServe under the direction of the AP's board of directors, which was composed of communications industry leaders. Keith Fuller, then AP president, expressed the purpose of the experiment succinctly. "The board has heard two views," he said. "One is that electronic delivery to the home is the future knocking at the door. The other is that electronic delivery is a disaster hunting for a victim. We're going to find out which is correct."

To find the answer, CompuServe put into place extensive evaluative software to track and report subscribers' usage patterns. The results showed conclusively that videotex was not a threat to print newspapers. However, they also clearly pointed to a market for an online news database with screening

1980

CompuServe merges with H&R Block, providing financial support for expanding the network and Information Service. CompuServe continues to maintain its own board of directors.

CompuServe and Tandy Corp. plan to market the newly named CompuServe Information Service in Radio Shack retail stores.

The Associated Press and several newspapers join forces with CompuServe to explore electronic news delivery, eventually forming the Associated Press Videotex and the Executive News Service.

The *Columbus Dispatch* becomes the first electronic newspaper and is distributed via the CompuServe Information Service.

CompuServe offers 24-hour access to its 4,000 Information Service subscribers.

H&R BLOCK®
THE INCOME TAX PEOPLE

4,000 subscribers

and clipping capabilities.

To meet these needs, the Executive News Service was born. It continues to be a popular service. ENS (GO ENS) was followed by other successful online news delivery services, including OTC NewsAlert (GO OTCNEWS), the *Online Today Daily Edition* (GO OLT), the Business Wire (GO TBW) and several other news services. (For a list of all news services, type GO NEWS at any prompt.)

Just as important as the research data it yielded was the extensive media coverage CompuServe received because of its participation in the newspaper experiment. A report of CompuServe's findings that was made available to the 1,300 daily papers and 3,500 radio and TV stations owned by the Associated Press resulted in a flood of media attention.

Recalls Rich Baker, manager of editorial services: "All of a sudden, we had the biggest newspapers in the country running stories about the CompuServe Information Service. The news stories spun off into wire stories and our getting on the 'Today' show. The 'Today' crew came here so Garrick Utley could deliver the story. We got an incredible amount of exposure from the newspaper experiment. No amount of paid advertising could have accomplished such a feat."

At about the same time the newspaper experiment began in 1980, CompuServe signed an agreement with the Tandy Corp. to offer the CompuServe Information Service for sale in Tandy's 7,000 Radio Shack stores across the country. The agreement enabled owners of Radio Shack personal computers and a few other brand-name computers to buy a relatively inexpensive Information Service "starter kit" that contained subscription information to get them online with CompuServe and one hour of free online time.

MicroNET tested before debut: *Ranshaw*

The newspaper experiment had given the Information Service national exposure. The agreement with Radio Shack provided a ready-made avenue for marketing the service. Meanwhile, back at corporate headquarters, people were still developing new products as they continued to search for answers to that vitally important question: "What do personal computer owners really want?"

Answers from Two Wizards

It turns out that many personal computer owners wanted the same things that people without computers wanted. They wanted to chat with friends. They wanted to be entertained. They wanted to feel part of something larger than their own homes, streets and towns. They didn't know it yet, but they wanted online CB and they wanted online games. At least that was the thinking of Alexander Trevor, the Wizard of CB, and Russ Ranshaw, the Wizard of Ten.

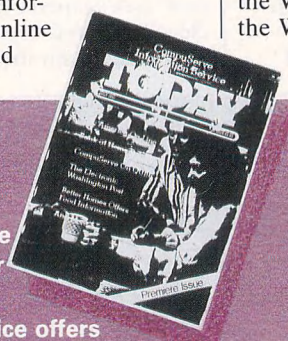
The Wizards—each for different reasons that resulted in different types of products—were both right. "I thought if we could find a way to humanize this high-tech environment, we'd get a lot more people interested," explains Trevor, whose CB nickname or "handle" (Wizard of CB) reflects the fact that he is the proud papa of this product. "It struck me that CB was something everyone had heard of. Unlike many computer concepts, it wasn't difficult for novices, and I thought it would provide a unique environment for meeting other people."

Trevor wrote the program code for the product one weekend in 1980 and put it up in the programmers' area online, where the CB Simulator was marketed by word of mouth. "There wasn't a dime spent on advertising the first four years," he says proudly. "Jeff Wilkins, CompuServe's first president and CEO, thought it would be a fad. It wasn't even on the menu for a year. To prove my case, I installed a tracking device to measure paying users and was able to show how successful it actually was."

Still one of the most popular single products on the Information Service, the CB Simulator has a large and loyal following among online friends who stick together through thick, through thin and even through weddings. Several years ago, when an online romance culminated in an online marriage, online CB friends threw online rice (it looked like this:) ********** after the couple's emphatic online [[[[[[[[[KISS]]]]]]]]]. "There have been many CB imitators," says Trevor, "but our product has always offered a unique environment for bringing people together. Our forums also meet this need to socialize and exchange information."

That same type of thinking—finding products that

1981



"Ask Aunt Nettie," the predecessor to Customer Feedback, goes online.

The Information Service offers 1200-baud communication.

EMAIL, the forerunner of EasyPlex, is introduced.

***Today Magazine* premiers, offering news of the electronic community to Information Service subscribers.**

The Information Service is made available in Canada.

1983

***The Washington Post* goes online on the Information Service.**

THE ELECTRONIC MALL®

The Electronic Mall opens. It is the first information service-based shopping service to offer merchandise from national merchants to personal computer users.

The Washington Post

***Online Today Electronic Edition* debuts in the Information Service, providing daily updates on videotex and computer industry news.**

1984

Combining 'High Touch' with High Tech

by Carole Houze Gerber

Long ago, before the Information Service grew to need 58 pleasant and well-informed Customer Service representatives, subscribers often turned for help to an online personage named Aunt Nettie. No one knew exactly what she looked like, of course, but she sounded so chatty and warm and motherly that she put some subscribers in mind of Aunt Bea on "Mayberry RFD."

Whether subscribers' questions were technical or personal—for subscribers called on warm-hearted Nettie for all types of advice—they received a prompt and usually witty response. The first Aunt Nettie was former associate Lynne Gard, daughter of CompuServe founder Harry Gard. Manager of Editorial Services Rich Baker served as the second Aunt Nettie, whose hairnet, er, hat, was later passed along to several other associates during her lifetime.

"Having a fictitious character like Aunt Nettie was another element of 'high touch' we used to soften the high tech," says Baker. "Nettie was witty and often answered subscribers' questions in riddles and puns."

It was because she was so engaging that the Information Service kept Aunt Nettie working in tandem with the official Customer Service department, which was established in 1980. Aunt Nettie never actually died. Instead, she gradually faded away as the Service grew and subscribers began asking many more technical questions and fewer personal ones. Another factor in Aunt Nettie's fading was the immediate popularity of the CB Simulator, which linked subscribers to one another in an interactive online environment.

Although Aunt Nettie is long gone, her "high touch" approach has survived. *Online Today,* which is sent each month to the CompuServe Information Service's half-million subscribers, takes a "high touch" approach to information about products and services. *Online Today Daily Edition* (GO OLT) keeps subscribers current on a weekly, and in areas such as industry news, daily basis.

"The magazine is a vehicle for telling subscribers about anything and everything that's happening on the information service," says *Online Today* Editor Doug Branstetter. "We deliberately take a feature approach in the magazine rather than one that is jargon-laden. The feature approach makes *OLT* more interesting to subscribers. It also clarifies technical information that might otherwise be intimidating or just plain boring."

In addition to the print and online support subscribers receive in each issue of *OLT*, phone and online access to CompuServe's Customer Service department is available. Customer Service representatives, who handle about 1,400 calls a day, also answer letters and respond online each day to the approximately 250 questions subscribers post in Feedback (GO FEEDBACK). Response to subscribers' needs is handled promptly and tactfully.

"Our Customer Service reps receive 80 hours of training that goes beyond providing them with a technical understanding of the system. We also teach them how to respond to subscribers in a positive way," says Margaret Cook, director of the Information Services Division's Customer Services.

The "high touch" approach Customer Service reps are trained to use has been widely praised, says Cook, who is proud that her department was included in a recent book, *The Service Edge: 101 Companies That Profit from Customer Care* by Ron Zemke (New American Library, 1989). "Whether accessed by voice or modem, CompuServe's reps have developed a first-rate reputation," Zemke wrote.

"Perhaps one reason is the uncommon amount of interpersonal involvement CompuServe seems to encourage between service reps and their customers. Many get Christmas cards from people they've come to know electronically while unsnarling snarls and resolving technical problems. ..."

Aunt Nettie would have been so proud.

would meet people's need for socializing and relaxing—was behind the technical skills Ranshaw put into developing many of the early games offered on the Information Service. "I noticed that people buying personal computers usually stated lofty goals about what they would use them for. What many ended up doing was playing interactive games with their computers," he says.

To meet this need for entertainment, Ranshaw took a game called *Adventure* that CompuServe had bought from the Digital Equipment Computer User Society and "hacked it to make it work in our environment." When he put the game up on the network with an offer of free play time to users, he signed his message "Wizard of Ten" because the system's original mainframes were PDP 10s. Shortly thereafter, Larry Shelley, manager of entertainment technology, was put in charge of games and the Wizard of Ten—who's known as a jack *and* master of all trades—moved on to troubleshoot in

EasyPlex replaces EMAIL as the electronic mail service used by personal computer customers.

The Information Service now has 250,000 subscribers across the United States.

1987

Two major Japanese firms agree to offer the CompuServe Information Service to personal computer users in Japan.

CompuServe's Graphics Interchange Format (GIF) becomes available in the Information Service, allowing the exchange of graphics files between noncompatible microcomputers.

other areas of the Information Service.

During his gaming heyday, Ranshaw appeared, decked out in a custom-made wizard costume, at trade shows and other computer events. The costume is now tucked away in a closet and Ranshaw hasn't developed games for years, but he admits, "I'm still an *Island of Kesmai* freak."

The Information Service has grown to include a variety of interactive and multiplayer games, including the original *Adventure* put up by Ranshaw. Another old game that's still well-loved is *MegaWars*, which Shelley fashioned from an early *DEC Wars* game to support 60 players. Multiplayer games are still quite popular and, according to Shelley, new types of games will be added. "We're looking at micro-based and distributed intelligence games for the future," he says.

What Else Can We Offer?

Simultaneously with the development of the CB Simulator and the early games, other people were thinking of ideas for products and services. Because in-house associates couldn't possibly supply everything needed for the Information Service, outside "information providers" were sought to provide new products and keep them current and viable. In return, CompuServe provided technical support and a carefully designed set of guidelines describing the technical and ethical standards required for providing online information.

In short order, the Information Service grew from an informal organization led by Meier, Trevor and a handful of other key associates, into a structured division of CompuServe. Programmers programmed. Software developers developed software. Marketing and research people marketed and researched. Customer services representatives serviced. Product managers sought out and managed new products and services. Database managers managed. Network control maintained the vitally important packet-switching network. Artists drew pictures of the new products and writers wrote about them. People worked hard and it showed.

Services grew to include 180 special interest forums, along with access to research, news and weather, flight planning, travel, shopping, business information, messaging services and more. Some services, such as CB and many of the news and financial services, met subscribers' long-term needs and became incredibly successful. Some, like home banking, didn't and weren't. Other services, such as some of the early machine-specific forums, disappeared when the hardware did.

In a continuous cycle of change necessary to meet subscribers' needs, forums, services and products sprang up to take the place of those that didn't succeed. To ensure its continued growth and prosperity, the Information Service needed to expand offerings while continuing to provide subscribers with quality information and services.

Presently, the Information Service provides access to more than 1,400 products and services. (A complete description of all services can be found in *The CompuServe Almanac: An Offline Reference of Online Services*. For details, type GO ORDER.) As services grew and more people bought personal computers, the Information Service experienced explosive growth —from 2,500 subscribers in 1980 to 10,000 in 1981, to 100,000 in 1984 to a world record 500,000 in 1989.

As is to be expected when rapid growth occurs, the corporate atmosphere changed. "When we first began marketing the Information Service, *Online Today* Publisher Cal Hamrick, who was also involved in marketing, and I would check the mail every day to see how many people had mailed in new subscriber applications in response to our ads," says Meier. "I recall our being ecstatic one afternoon when we counted up an all-time high of 30 applications."

"There was a spirit of adventure when we started," adds project coordinator Dixie Stevenson, who joined CompuServe in 1978. "If a local subscriber called with a problem, one of our two Customer Service reps would jump in his car, drive over to the subscriber's house and show him what to do." Obviously, that kind of hands-on interaction wasn't possible—or necessary—as the Information Service grew.

Despite the unavoidable changes caused by rapid growth in personnel and services, much of the excitement and informality that characterized the early Information Service survives. Executives maintain an open door policy and most, including President and CEO Charlie McCall, answer their own phones. Titles are relatively unimportant to many associates, but competence in all areas is prized. People are on a first-name basis throughout the company, and a team approach to many projects facilitates the sharing of ideas among associates from a variety of backgrounds.

What's in Store?

Future plans call for developing a worldwide base of subscribers, continuing improvements in the host-micro interface to make access even easier, and the ongoing development of new products to keep pace with subscribers' needs. "I think CompuServe is going to play a much larger role than any of us can conceive of in the shrinking of the world," predicts Meier. "Our company is in a unique position to have a profound effect on the process of creating

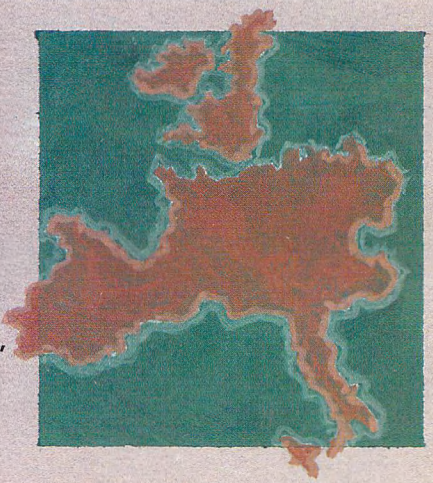
1988

1040A

CompuServe provides the network for H&R Block's Rapid Refund, allowing taxpayers to file returns electronically and to receive tax refunds quickly.

EasyPlex and InfoPlex, CompuServe's electronic mail systems, add fax messaging capabilities.

CompuServe finalizes an agreement with Tele Columbus of Baden, Switzerland, and Radio-Schweiz, of Berne, to distribute the CompuServe Information Service in Europe. Plans also call for the development of local country services, based on the CompuServe model, in the United Kingdom, Switzerland and other European countries.



a global society."

It's a process that has already begun. In 1987, CompuServe made its first direct international link when three computers that opened a gateway to CompuServe were installed in Tokyo. The direct link resulted in a legal agreement between CompuServe and two Japanese companies, Fujitsu Ltd. and Nissho Iwai Corp., creating a separate company called NIF (Network Information Forum). The agreement grants NIF Corp. the right to offer the CompuServe Information Service in Japan and to offer NIF Corp.'s NIFTY-Serve, a Japanese-language information service patterned after CompuServe's in the United States.

A satellite link between Tokyo and San Francisco extends the reach of CompuServe's network directly into Japan, enabling Japanese subscribers to access the CompuServe Information Service through local dial-up in Japan. "If there's a problem in Japan, we'll know through our network monitoring system," says Gary Sgambellone, manager of network control.

In April of this year, CompuServe announced a gateway to NIFTY-Serve for Japanese Americans who are NIFTY-Serve subscribers. In addition, US residents in the future may be able to subscribe to NIFTY-Serve through the CompuServe Information Service.

NIFTY-Serve has well over 45,000 subscribers and about 1,000 are added each month. "We expect a big demand in the United States for services in Japanese because there are many Japanese Americans," says Hiroshi Iitomi, president of NIF Corp. "Some have families in Japan and they need to communicate with them in Japanese. If they use electronic mail, they can easily communicate [despite the time difference]," Iitomi says.

The project to provide NIFTY-Serve via the CompuServe Information Service required linking the two systems. "We work with the Japanese continually to improve communications between our networks and services," says Jim Ryan, CompuServe director of international marketing. Says Iitomi, "Together, we will be able to establish a worldwide network, and it will provide a strong edge."

Also in the works is a joint-venture agreement with a Swiss company to begin a European expansion of the Service. The agreement with Tele Columbus of Baden, Switzerland, and Radio Schweiz of Berne, provides for local marketing and support of the CompuServe Information Service in the United Kingdom and Switzerland, and later in other European countries. It also calls for the development of local country services, based on the CompuServe model.

"CompuServe brings its marketing, technical and customer support experience in delivering information services," says Maurice A. Cox, executive vice president of CompuServe's Information Service Division. "Tele Columbus and Radio Schweiz will provide their European marketing, telecommunications and facilities management expertise to the program."

After the European services are in place, the resulting interconnected electronic mail services will represent the world's largest international communications system, according to Cox.

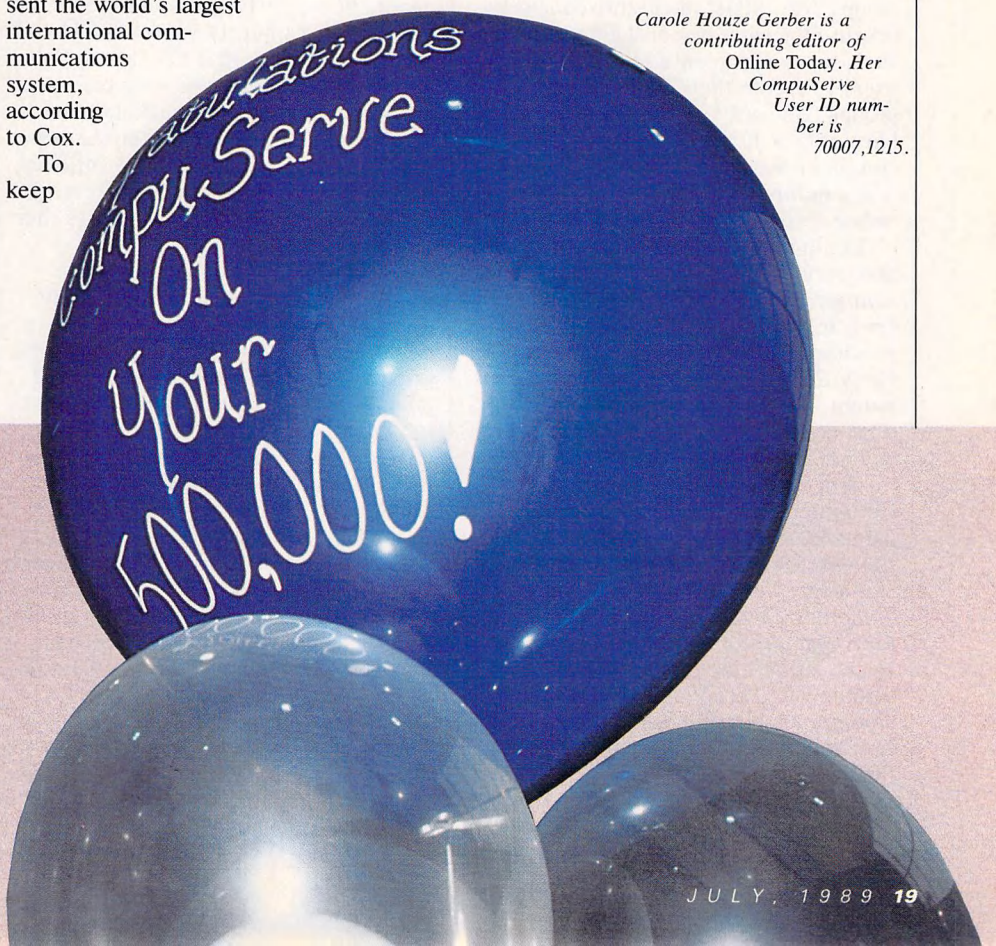
To keep pace with this worldwide expansion, CompuServe must provide the latest and best technology available. "We use satellites, fiber optic links, cellular radio modems and digital radio networks. Every new technology is evaluated to see if it can be used to improve our computer and network services," says Computer Operations Manager Mike Gregory.

Last spring CompuServe software engineers began work on "Project 90," which greatly enhances users' interaction with the CompuServe Information Service and gives it a new improved look for the 1990s. A major component of Project 90 is software that is being designed to provide faster, easier access to CompuServe's information. Anyone with a modem and a personal computer will be able to put in the disk, turn on the computer and be ready to go.

This software is not the first, nor will it be the last, major improvement made to the Information Service. "The system is constantly evolving," says Ranshaw. "There hasn't been a week here when something new hasn't come along, many of which are enhancements subscribers never see.

"Of course, there will always be room for improvement," adds the Wizard of Ten. "But we've come a long, long way."

Carole Houze Gerber is a contributing editor of Online Today. *Her CompuServe User ID number is 70007,1215.*



The CompuServe Information Service becomes the first online information service to reach 500,000 members.

Forum Growth Creates Information Mecca

by Charles Bowen

Seeing CompuServe's forums grow up over the past decade has been like watching a speeded-up time-lapse film. A sleepy cluster of traders' shacks pop up around the frontier fort. A blur of activity follows—building, re-building, voting, zoning—and the next thing you know, you've got Chicago.

The first forums were personal computing's wilderness trading posts, dealing in data—technical information, mostly, about hardware and software—exchanged with a small but hungry clientele.

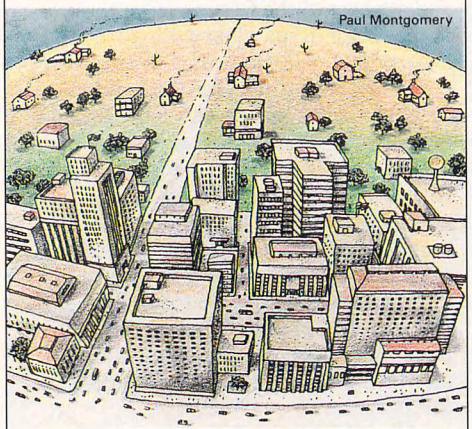
The initial emphasis on technical matters was no accident. Just as the original trading posts served the specialized needs of enterprising trappers and explorers, the first forums catered to those computerists who were savvy enough to reach them. The first to arrive were a hardy lot, used to solving their own problems, but getting online took even more moxie, because it involved what seemed to be the voodoo electronics of baud rates, parity settings and stop bits.

Forums (called "special interest groups" or "SIGs" then) thrived largely because the early personal computers had such scant documentation, prompting users to create their own support groups. Because a city or a town might have only a dozen or two personal computer users, the instant, international nature of telecomputing made the online forums ideal as user groups.

CompuServe was the first information service to offer specialized discussion groups, starting with machine-specific forums to aid those who had purchased specific kinds of computers. Early SIGs served the first Apple computers, the TRS-80 models from Radio Shack, and Commodore systems such as the PET and the Vic-20.

Other online groups—such as the Computer Club (GO CLUB), established by now-defunct *Computers and Electronics* magazine—became discussion centers for more than one kind of computer, including whatever had just been announced and lesser-known systems that didn't have their own forums yet. These multisystem discussion groups became spawning grounds for even more forums. In fact, some of today's more active online groups, such as those of the IBM Users Network (GO IBMNET) and Atari Users Network (GO ATARINET), began as single sections of the Computer Club.

Such gatherings of the computer cognoscenti naturally attracted industry leaders. Over the years, members of the Micronetworked Apple Users' Group (GO MAUG) have hosted online meetings with the Apple elite, including Chairman/President John Sculley and company co-founder Stephen Wozniak. Sometimes the results even turn out to be newsworthy. Excerpts of one of Wozniak's meetings with MAUG were quoted in *InfoWorld*.



And new hardware often has been tried out in the forums before its public debut. In the early 1980s, developers of Tandy Corp.'s hugely successful Model 100 quietly tested that new laptop online in various forums long before its introduction in Radio Shack stores across the country. And after the system's release, the same Tandy officials, including Ed Juge and Bill Walters, met in real-time conferences to discuss their online test results.

Meanwhile, as communications software and hardware became more accessible to a wider range of computerists, new kinds of discussion groups also came online. Rather than being devoted exclusively to computer topics, this next wave of forums discussed a wide range of subjects, from law and medicine to gardening and religion, sports and travel. The newer forums attracted computer enthusiasts who also were writers and editors, rock stars or politicians. Some of the forums also explored the online medium in new ways. Game-oriented forums held real-time role-playing adventures, a kind of electronic *Dungeons and Dragons*, while other forums tried their hands at writing experimental "group novels."

Forums also have been settings for truly historic gatherings. In January 1986, just 10 minutes after the tragic explosion of the space shuttle Challenger, users came together in the Space Forum (GO SPACE) to share their sorrow. What followed was a spontaneous conference that continued non-stop for more than 18 hours and attracted NASA officials and space enthusiasts as well as the general public.

The same forum has seen happier times, too. In the spring of 1985, it hosted the first international real-time conference. The guest was science-fiction author Arthur C. Clarke, who is widely credited with having the first vision of the telecommunications satellite that made it all possible. To talk online, Clarke sat in his home in Sri Lanka near the Indian Ocean and typed messages that were seen simultaneously on several continents.

Since the early 1980s, when perhaps a dozen forums were available, the system has seen an enormous population explosion. Today more than 170 forums operate on CompuServe. And, unlike the "real world" with its urban renewal, the online community has not had to give up the old to enjoy the new. On the contrary, the original computer-oriented forums have grown and prospered and multiplied beside the newcomers—forums devoted to the professions, the home and office, recreation and education.

And the energy and imagination that drove the first decade is still present. The newest types of forums on the block are those devoted to specific kinds of software, such as major word processors, spreadsheets and communications programs. Sometimes run by software publishers or by dedicated user groups, the newer forums are becoming the smart computerist's main support system for these powerful programs.

If you want to explore forums, there are several ways to locate them:

- You can use the FIND command to seek those devoted to a specific topic. At any prompt, type FIND plus the topic, such as FIND APPLE, FIND TANDY or FIND IBM.
- Many forums are grouped on summary menus in the system, so you can reach them by typing GO SOFTWARE, GO HARDWARE, GO EDUCATION, GO FAMILY or GO HOBBY.
- Or if you want a list of all public forums, type FIND FORUMS at any prompt.

Charles Bowen is a contributing editor of Online Today. *His CompuServe User ID number is 70007,411.*

CompuServe Anniversary Trivia

Join in the celebration by participating in a trivia quiz about CompuServe. Answer all the questions correctly online and be eligible to win prizes.

GRAND PRIZE

Grand prize: $99 Shure SM57 Microphone from Music Alley Online plus $100 CompuServe connect-time credit.

FIRST PRIZE

First prize: $75 time credit plus CompuServe Navigator or PC3 software.

SECOND PRIZE

Second prize: Public Domain Software Anthology (Macintosh) from Discovery Artists.

THIRD PRIZES

Four Third place prizes:

1. Crabtree & Evelyn Rose 'n' Lace Basket and *Investment Software Reference Guide* from Investment Software.
2. 1 lb. smoked salmon from Ivory Cache and *The Foundation Trilogy* by Isaac Asimov (boxed set) from Ballantine Books.
3. $25 Gift Certificate from Sharon Luggage & Gifts, Billboard's Top Rock 'n' Roll Hits from 1969 Compact Disc from AM/PM Music, Jerome Robbins Souvenir Program Book from Telecharge, and $11 CompuServe time credit.
4. *Comrades* Board Game from Games Galore, Simon David Tote Bag, and $21 CompuServe time credit.

FOURTH PRIZES

43 Fourth place prizes: Each prize is a $12.50 CompuServe time credit and a *CompuServe Almanac*.

To participate in the contest, answer the following questions online in the CompuServe Anniversary Trivia Database (GO ANNIVERSARY). Mail-in entries cannot be accepted.

1. Which of the following software packages can log on automatically, check messages and log off quickly, thus saving in online connect time?
- A. MacWrite
- B. CompuServe Navigator
- C. Aldus Freehand
- D. TAPCIS
- E. Both B and D

2. Which of the following is/are available free of connect-time charges to CompuServe members?
- A. Subject Index
- B. Online Tour
- C. Practice Forum
- D. Phones database
- E. All of the above

3. Where would you go if you wanted to recommend someone as a new CompuServe member?
- A. User Directory
- B. What's New
- C. GO FRIEND
- D. *You Guessed It!*
- E. Rates database

4. Your *betta splendens* is ailing. Where could you find help?
- A. Consumer Health Forum
- B. Aquaria and Tropical Fish Forum
- C. AAMSI Medical Forum
- D. Travel Forum
- E. Rare Disease Database

5. *Online Today Daily Edition* carries which of the following?
- A. Restaurant reviews
- B. Computer/online industry news
- C. Software reviews
- D. Both B and C
- E. None of the above

6. Which service will clip news stories automatically for you?
- A. Electronic Mall News
- B. IBM New Users Forum
- C. Executive News Service
- D. SUPERSITE
- E. None of the above

7. Which of these files would need to be "unpacked" (decompressed) before running?
- A. FARM.TXT
- B. COMPRESS.TXT
- C. ARCCOM.BIN
- D. HAZE.ARC
- E. None of the above

8. What command would you type to view your connect charges online?
- A. GO CHARGES
- B. GO TERMINAL
- C. GO PROFILE
- D. GO MONEY
- E. Any of the above

9. Where can you go online to talk with others in "real-time"?
- A. Conference area of a forum
- B. Forum libraries
- C. Forum message board
- D. CB Simulator
- E. Either A or D

10. EasyPlex allows members to send mail to which of the following?
- A. Group 3 facsimile (fax) machines
- B. Group 30 facsimile (fax) machines
- C. Telex machines
- D. MCI Mail subscribers
- E. A, C and D

Contest Rules

This is an abbreviated version of the contest rules. For complete rules, type GO ANNIVERSARY (free of connect-time charges).

1. Answer the 10 multiple choice questions (reprinted here) correctly online and you become eligible to win. Use your CompuServe know-how or log on to find the answers. Hints are provided in the Anniversary Trivia Contest Database. *No purchase necessary.* Type GO ANNIVERSARY to fill out the quiz (free of connect-time charges).

2. The Anniversary Trivia Contest is a skill-based contest for regular customers of the CompuServe Information Service. Participation is open to residents of the United States. Employees of CompuServe Incorporated, H&R Block, CompuServe Information Providers, Sysops, GameOps, Electronic Mall® merchants, their affiliates, subsidiaries, advertising agencies and immediate families are ineligible to participate and win prizes. Players cannot participate using multiple User ID numbers. Contest is void where prohibited by law.

3. Answers must be received *online* by 11:59 PM EDT August 15, 1989. Entries sent through traditional mail will not be accepted.

4. The special Anniversary Trivia Software will check answers. All players submitting correct answers to all 10 questions will be eligible for prize drawings. Winners will be selected in a random drawing Sept. 1, 1989 from all correct entries received.

5. Fifty prizes will be awarded. The total value of all prizes is $1,730. No prize may be exchanged, substituted, modified or redeemed for cash. All prizes will be awarded. One prize per family, individual, household or User ID number. Prizes are not transferrable. Prizes won by entrants under the age of 18 will be awarded to the winner's parent or legal guardian. All taxes are the responsibility of the winners.

Upgrading?

If your computer needs have grown, we understand completely — ours have too! The On-Line Store has expanded and is now serving an active network of over 100,000 dealers, resellers, and end users worldwide. To handle all this growth without compromising the quality of our service, we decided to "upgrade."

We've added a *Software Showcase* to our comprehensive on-line catalog to let you "try before you buy"—making it easier for you to decide which package will suit you best—and easier for us to meet your needs.

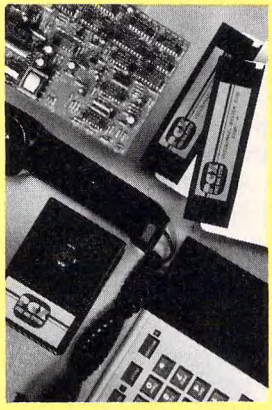
We are distributing our on-line catalog on CompuServe's Electronic Mall (type GO OS at any ! prompt), so you can reach us to review products, download sample software, and order from the convenience of your home or office, at any time of the day or night.

And last, but not least, we've installed a multi-line version of PCX, our award-winning voice/mail telemarketing system to handle the increased phone traffic—so you'll get service when you call, not a busy signal.

If your computer needs are growing too, get in touch with the On-Line Store. We've put our products to work and provide even better service than before—and that's the true meaning of "upgrade," isn't it?

PC/WORKS

PC MAGAZINE EDITORS' CHOICE



New!

PCX MULTI-LINE VOICE/MAIL SYSTEM

Everyone's talking about the new multi-line version of PCX Voice/Mail Telemarketing System.

The single line version of PCX was just awarded PC Magazine's *Editor's Choice* in January (under its parent name, Bigmouth) and we fully expect the multi-line version to carry on the family tradition of earning top honors for high flexibility and low price.

With hundreds of features such as call routing, in- and outbound telemarketing and private mailboxes, PCX can be customized to fit your particular needs.

With the multi-line version, you can increase your capabilities as your needs grow. Upgrade from one to two lines (ask about full value trade-ins) and add on additional units to accommodate up to 16 phone lines.

Single Line Version: **$269**

Multi-Line Version: **$799**

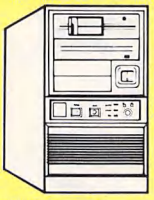
AWARD WINNING SYSTEMS

30 MB HARD DRIVE SYSTEM 286/AT

$795 *Full Cash Price*

- *80286 Processor*
- *IBM/OS2 Compatible*
- *80287 Co-Processor Slot*
- *Monitor Optional*

386 MICRO TOWER

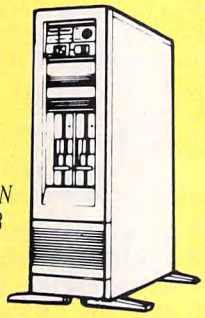


IBM/OS2 COMPATIBLE

$995 *Full Cash Price*

While Special Supply Lasts!

65 MB 386/TOWER CASE SYSTEM



- *Novell/UNIX/XENIX/LAN*
- *1 MB RAM Expand to 16 MB*

$1995 *Full Cash Price*

PORTABLES TO GO

PORTABLE 286/386

- *6 Expansion Slots*
- *640 x 400 Backlit LCD*
- *Handsome Carry Case*

286 Processor, 40 MB Hard Disk, 640K.....$1595
386 Processor, 65 MB Hard Disk, 1 MB 1995

20 MB HARD DISK PC/XT

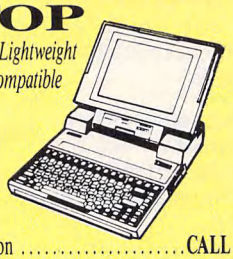
- *8088 Processor*
- *IBM Compatible*

$595 *Full Cash Price*

Limited Stock—Call Now!

TOSHIBA T-1000 LAPTOP

- *1 Floppy*
- *3 Slots*
- *Lightweight*
- *Battery/AC*
- *IBM Compatible*
- *LCD Display*



$695 *Full Cash Price*

20 MB Hard Drive Option .....CALL

SYSTEM ENHANCEMENTS

PRIAM 292 MB HARD DRIVE AND CONTROLLER KIT

- *Novell Compatible*
- *Unix Compatible*
- *24 MS Access*

$1995 *Full Cash Price*

154 MB MINISCRIBE DUAL HARD DRIVE AND CONTROLLER KIT

- *High Quality*
- *Advanced Technology*

$879 *Full Cash Price*

TOSIHBA 110 MB HARD DRIVE AND CONTROLLER KIT

- *H/F Controller*
- *1:1 Interleave*
- *25 MS Access*

$849 *Full Cash Price*

INSTANT WORKSTATIONS

Just Add Our OA-Link XT/AT Co-Processing Stations to Your 286/386

- *FAST Installation*
- *XT or AT Processors*
- *Color Available*

$650 *Full Cash Price*

Just Say When.

QUADRAM

MAGAZINE EDITOR'S CHOICE

JT/FAX

Now Only $199*

JT/FAX has features such as pull-down windows, multiple scheduling and Broadcast FAX. Runs unattended. Input: scanner or word processor. Output: dot matrix or laser printer. Group III FAX compatible.

External Stand-Alone Version $349*

LOGITECH

SPECIAL PURCHASE MOUSE

With Paint Show Plus

Graphics and Desktop Publishing Software

$ 69*

ASK ABOUT OCR/ASCII SOFTWARE

LOGITECH HAND SCANNER

Including Software

Now Only $169*

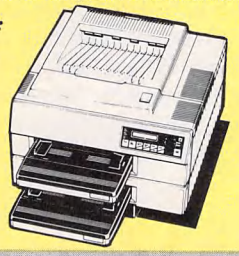
Call About Our Full Page Scanners!

LASERJET

FAMOUS BRAND LASER PRINTER II

$ 1399*

With Jet Font Cartridge Bundle



HIGH SPEED

US Robotics

HST

$ 539*

HAYES COMPATIBLE

V.32 External Modem	$669*
USR Dual Standard	CALL
USR 2400 Baud Modem	129*

SOFTWARE SHOWCASE

Try Before You Buy!

The On-Line Store's new *Software Showcase* allows you to download the demo versions of many great software products. Just call the bulletin board number listed below.

DLX is a commercial multi-line multi-user database and BBS System capable of supporting up to 24 users under nothing more than MS-DOS.

RBASE DOS is a highly acclaimed database that allows scores of custom applications with true multi-user support. A compiler is also available.

TELEMAGIC is a telemarketer's dream come true. This product will organize the most unorganized telephone salesperson and is available in a multi-user version.

DESIGN CAD 3D is a 3 dimensional CAD/CAM program for under $300 with features that exceed systems costing over $5,000. Also ideal for engineering and architectural applications.

DOWNLOAD FROM OUR BBS 24 HOURS A DAY: 8/1/N

805/650-0193

MODEMS

4800 BAUD HAYES COMPATIBLE MODEM

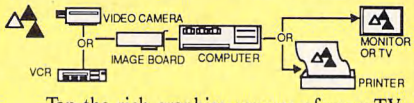
USING MICROCOM LEV 5 MNP

- *Software included*
- *Auto Dial*
- *Auto Answer*
- *Supports 300-1200-2400 Baud TOO!*
- *2 Year Warranty*

Ext. $129* *Int.* $99*

PC/WORKS

INTEGRATED IMAGE BOARD



Tap the rich graphics sources of your TV, VCR or video camera with the push of a button. In less than 10 seconds you can make high resolution video snapshots and turn them into sharp halftone graphics. The program's quick editing utilities let you retouch, crop, and rotate images for use in virtually any graphics or desktop publishing application.

- *NTSC/PAL Input and Output*
- *High Resolution 512 x 480*

$ 169*

Call About Our Genlock Version!

FILE TRANSER

LAPLINK FILE TRANSFER KIT

- *Includes 35" and 5.25" Disks and Universal Cable*
- *FAST File Transfer*
- *Easy-to-Use Menus— No Commands to Learn*

$ 89*

While Special Supply Lasts!

GO OLI for more information.

ALL *PRICES SHOWN ARE WHOLESALE AND REFLECT AN ADDITIONAL 3% CASH DISCOUNT. THE ON-LINE STORE'S WHOLESALE + 7% PURCHASERS PAY JUST 7% ABOVE THE WHOLESALE PRICE, PLUS SHIPPING AND HANDLING. Minimum shipping: $5 per order. International orders: call for rates. Prices subject to change. Products subject to availability and may be private label versions. WE ALSO SERVE LARGE CORPORATE ORDERS: call for information. This ad supersedes all previous.

CALL NOW! 24 HOUR ORDER LINE:

805/650-0188

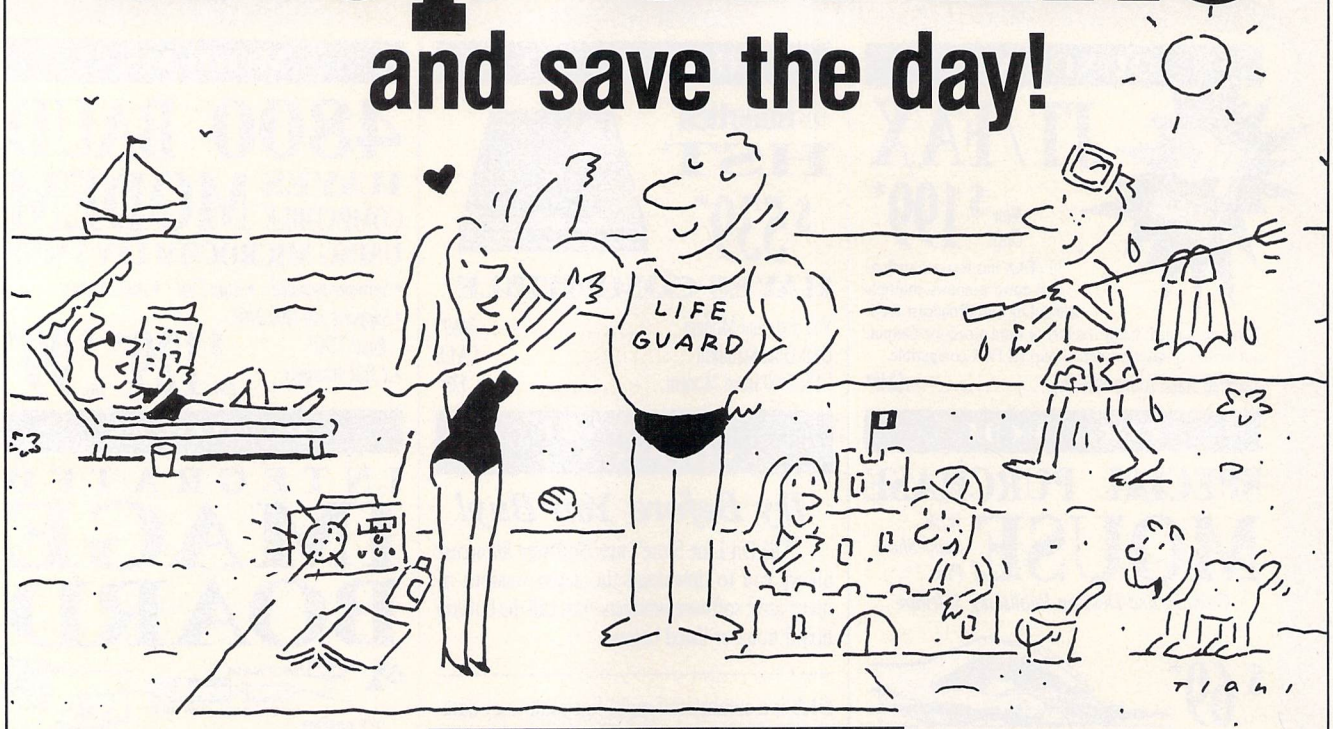
MasterCard VISA ON LINE CHARGE American Express Card

BBS 805/650-0193
FAX 805/650-0195
CUSTOMER SERVICE **805/650-0188**
3037 Golf Course Dr., Ventura, CA 93003

ON LINE STORE

Your Data Communications System Specialist

Shop On-line
and save the day!



SPECIAL INTRODUCTORY OFFER FOR COMPUSERVE SUBSCRIBERS!

3 MONTHS FOR $1

You've got better things to do with your precious summer days than spend them in stuffy, crowded department stores searching for bargains—especially when you don't have to. With Shoppers Advantage you can bargain shop from your PC whenever it's convenient for you, rain or shine.

And, not only will you have more time to work on your tan, you'll be able to save up to 50% off manufacturers' list prices on over 250,000 name-brand products. When you see how much you can save, you'll agree Shoppers Advantage gives you a better way to spend your summer and your money!

- **User-friendly convenience.** We're open 24 hours a day, 7 days a week. Browse on-line, order on-line, and have your purchases delivered to your door. Simple menus and step-by-step instructions make it easy.
- **Tremendous selection.** Without leaving the comfort of your home or office, compare makes and models, compare name-brands—best of all, compare prices!
- **Lowest-price guarantee.** If you can find a lower price on an item you buy from us, we'll refund the difference.*
- **Double warranties.** You can double the manufacturers' warranty up to one year at no additional cost.*
- **Free catalogs.** We'll keep you informed about our latest "Best Buys" and exciting additions to our database of fine products!
- **Enroll today.** Sign on to CompuServe and enter **GO SAC** to have full membership privileges for 3 months for just $1. Then, unless you notify us, we will continue your membership and bill you for the low annual fee of $30. And, of course, you can cancel and receive a full refund at any time during the first year.

Shoppers Advantage℠
ON THE ELECTRONIC MALL®

Enter GO SAC or Call 1-800-843-7777

© 1988, CUC International Inc.
Shoppers Advantage is a service of CUC International Inc.
The Electronic Mall is a service of CompuServe.
*Conditions of our Lowest-Price-Guarantee and Double Warranty Policy can be read on-line. B680T

Sample the world's premier, and most complete on-line shopping service!

Go Mall

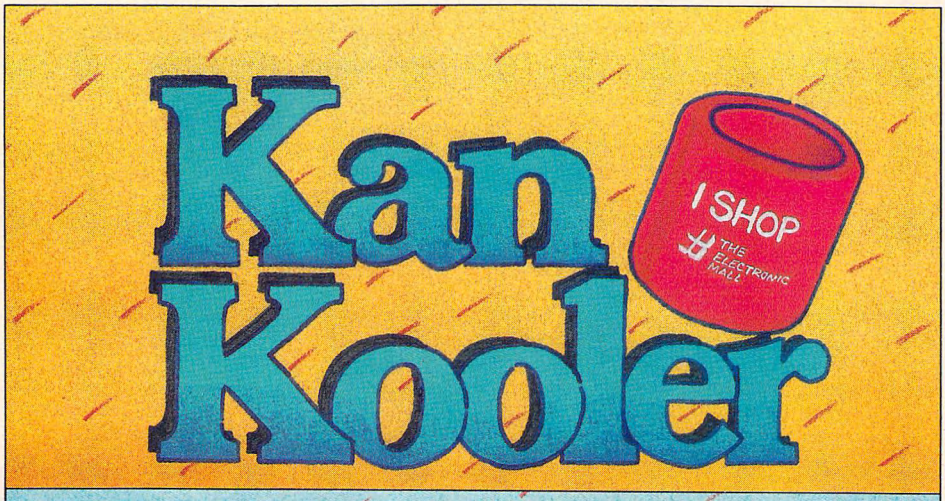
A GUIDE TO COMPUSERVE'S ELECTRONIC MALL® JULY/AUGUST 1989

Win a Kan Kooler and keep your favorite drink frosty

Sort through electronic sidewalk sales during The Mall's Summer Sale-A-Bration

Nose ahead of Rudolph and celebrate Christmas in July with three days of free connect

Flash! Find items in *Go Mall* online, fast



THE ELECTRONIC MALL®

DEAR SHOPPER

Dear Shopper,

I admit it. I'm getting a bit nostalgic with all this anniversary talk. Twenty years. It takes me back. The summer of 1969 ... I remember man walking on the moon and Woodstock. If you do too, then I think you're in for some online fun at The Mall this month, starting with AM/PM Music & Video's "By The Time We Got To Woodstock" trivia quiz. You'll also want to explore Billboard's new year-by-year chart-topper CDs, also at AM/PM. What were you listening to as the '60s came to a close?

Do you remember sidewalk sales? I do. And this month we've got a high-tech twist on the old-fashioned Main Street markdown. Everything from software to sportswear, cakes to computers. Many at prices so low, you'd swear it was 1969 again.

If summer makes you think of cars and taking to the open road, you're in luck. This month, Nissan, Chevy and Alamo all celebrate Grand Openings at The Mall. American Magazine Subscriptions is spotlighting automobile publications. And Executive Depot's got a Jaguar anyone can afford!

Speaking of anniversaries, France celebrates its bicentennial on Bastille Day. Air France has Paris packages in every price range, plus lots of free touring books and maps.

It's summertime and the shopping is easy. GO MALL to join the online fun.

Electronically (and a bit nostalgically) yours,

Cindy Morgan

Cindy Morgan

GOINGS-ON: MALLWIDE

What the heck is "free connect"?

Whenever you read about a free-connect weekend in *Go Mall*, know you can browse through participating merchants' online stores for those two days without paying standard CompuServe rates. In other words, you pay nothing while you explore a Mall store that's currently offering free connect. (Though connect-time charges are waived, any applicable communications surcharges *do* remain in effect. Sorry.) Who says you can't get something for nothing?

The price is right (most of the time, anyway).

All prices mentioned in *Go Mall* are the most accurate prices available to our editorial staff at the time of publication. However, because The Electronic Mall is such a dynamic, changing environment, occasionally a printed price will be out-of-date by the time you look up the featured product online.

Here's a good rule of thumb: Before ordering anything from The Mall that appears in *Go Mall*, make sure you check its online price. You can be sure that this price is the most current.

Flash! Find items online—fast—that appear in *Go Mall*.

Now you can find items pictured in *Go Mall* faster than a speeding bullet (gee, maybe you can leap tall buildings in a single bound, too, huh?). If a product is pictured in *Go Mall*, simply type its respective store's GO command, followed by 99.

For example, if you're interested in reading more about the Tiffany stained glass window reproduction featured at The Metropolitan Museum of Art, you would type GO MMA99. If you wanted to learn more about Williams & Eeden's sundial/birdbath, you would type GO WE99.

It's that easy.

Shopping The Mall.

Ordering from The Electronic Mall is easy. Each time you enter a Mall store, a personal order file, much like an electronic shopping cart, is opened for you. Browse a store's database, and when you see a product you would like to buy, type the letter "O" and the order will be placed in your file, similar to selecting an item from a store's shelf and placing it in your cart.

You can order directly from the product description page — there is no need to return to a store's top menu. You can order one item or a dozen. When you type "O," the system does not complete your order; it only registers your desire to make a purchase.

Checking out.

To complete your order, you must "check out." You can do this by typing CHECKOUT, the GO command of the next store you wish to visit or any command that takes you elsewhere on CompuServe. This tells the system you are ready to complete the order and presents two options.

1. Cancel your order by typing EXIT.
2. Complete your order by responding to a series of prompts for additional information.

When you have supplied the necessary information, you will receive an order summary. You now have the chance to change part or all of your order. For example, if you've ordered three books but decide you only want two of them, you can delete one book from your order. Or maybe you would like to have your order shipped to your office instead of your home. You can make that change, too.

Once you've made any changes, you again will have the chance to review your order. When you confirm the order as correct, you will receive an order confirmation number. *At this point, your order is complete.* It is sent electronically to the Mall merchant's CompuServe mailbox for processing. The order process is the same for every Mall merchant, but methods of payment and delivery may differ. If you have questions regarding your order, it is best to contact the merchant directly by using the customer service information provided within each store.

THE ELECTRONIC LETTERBOX

Pass the word.

Dear Electronic Mall:

Just wanted to say how impressed I was upon receiving disks from Direct Micro that I ordered only three nights ago. This is amazing! Thanks for an excellent service. You can bet I'll not only shop again, but gladly pass the word.

Thanks again.

Jim A.
Branchville, NJ

Chocolate heaven.

Dear Electronic Mall:

Bravo, Godiva Chocolate! I just opened my order, tasted the chocolate, and thought I had gone to heaven. The chocolate was the best I've ever had. Will you tell them I really enjoyed it and will reorder many more times? Please give them a big pat on the back for me.

William P.
Burlington, NC

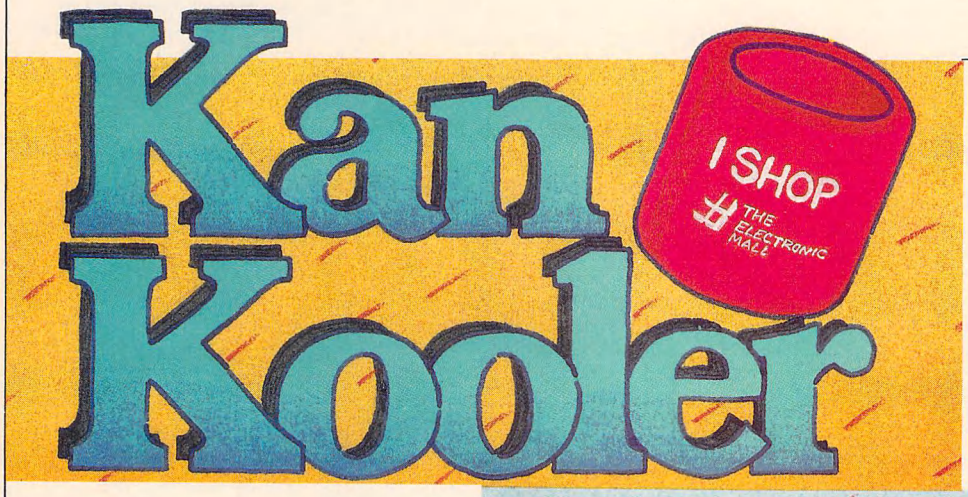
Go Mall

***Go Mall*, July/August 1989**
Volume 3 Number 4

Go Mall is published bimonthly by The Electronic Mall®, a service of the Advanced Media Group, CompuServe Incorporated. For more information, call 614/457-8600, or send an EasyPlex to 70007,1610. Editors: Cindy Morgan, Kirk Donnan and Kassie Rose.

It's a Mall Summer Sale-A-Bration!

It's summertime and shopping has never been easier or more fun. Join in on the online festivities. We've got free gifts, free shopping, sales galore and much more.



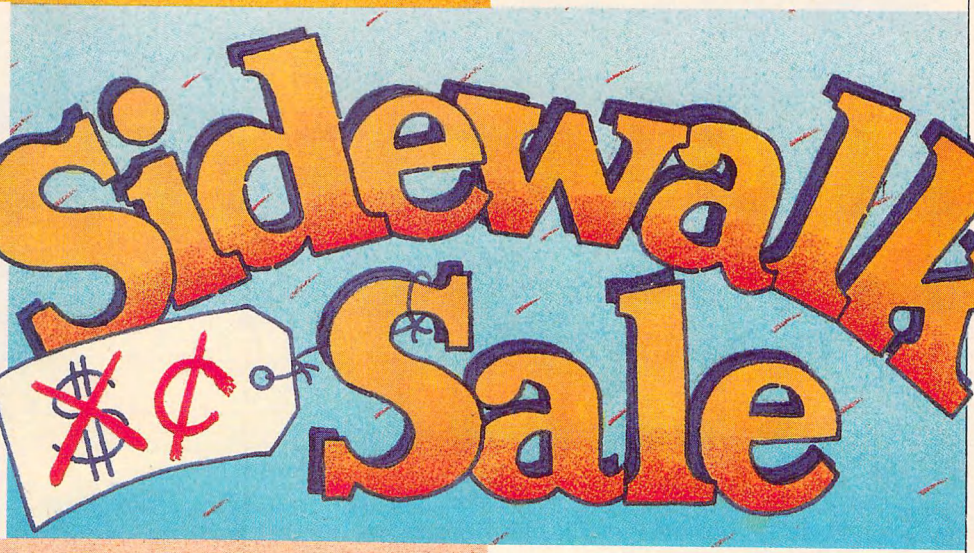
• Free Kan Koolers for the first 1,000 shoppers.

For starters, we've got free Electronic Mall Kan Koolers for the first 1,000 shoppers who make an online purchase of $25 or more beginning July 1. The Kan Kooler is perfect for the beach, the pool or the personal computer. There's nothing for you to do but shop! If you qualify, your Kan Kooler will be shipped, automatically, with our compliments.

• Sidewalk sales: something for everyone.

Also beginning July 1, we're holding Electronic Mall Summer Sidewalk Sales. Stroll the Mall's main menu and you'll discover hundreds of items displayed on our electronic tabletops. Organized by category for easy browsing, *everything* is on sale! Take a close look. Software for under $1... books for 50 cents ... CDs for $5 ... printer ribbons, diskettes, and disk cases ... toys, games and tools ... collectibles from Crabtree & Evelyn ... we could go on and on (but we won't!).

Feel free to sift through the merchandise, but make your selections now. Quantities are limited, and at these low prices they won't last long.



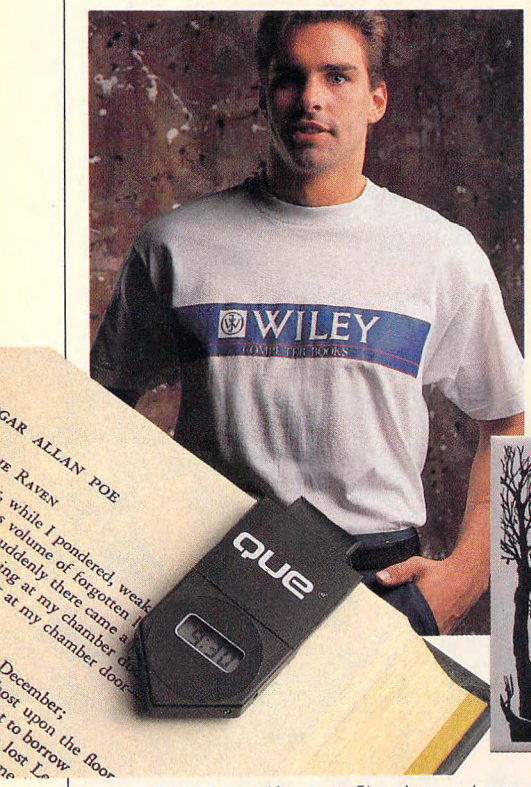
• Three days of free connect: Christmas in July

Get ready, because we're celebrating Christmas in July with three days of Mall-wide free connect. Get a jump on St. Nick and shop for free on Monday, July 24; Tuesday, July 25; and Wednesday, July 26. You'll pay no connect fees at any Electronic Mall store.

Visit old haunts such as Computer Express, Music Alley Online, Marymac Industries and Heathkit. Drop by new stores such as Push Pedal Pull, AM/PM Music & Video, and PC Computing. Join The CD Club, The Video Club or The Small Computer Book Club. Book a trip at Air France. See a show through Tele-Charge. Shop to your heart's content for three solid days. Remember, Christmas is only a short five months away (ho,ho,ho)!

Free freight and free gifts at Walden *Computer* Books.

Does Walden *Computer* Books have a dog-days-of-summer deal for you. Every purchase made in July or August will be shipped to you free of charge! No catch. No minimum purchase. Buy one book or a baker's dozen and get a free ride: the freight tab is on Walden.



Earn free gifts, too. Simply purchase two or more books, and Que Books will give you a free digital clock bookmark. John Wiley & Sons will toss in a free, large "Wiley Wizard" T-shirt, as well. This offer is good while supplies last. Hurry on down to Walden *Computer* Books today. GO WB

Ford celebrates the Mustang's 25th anniversary with prizes, free brochures.

Destined to outlive similar models from other manufacturers, Ford's hot specialty car first entered the US auto market in April 1964. In honor of its silver anniversary, Ford's Electronic Showroom salutes the Mustang by making the 1989 Silver Anniversary Mustang its current feature vehicle.

Sign on to Ford's feature vehicle section during July and August and order a 1989 Mustang brochure. You'll be registered to win one of many special prizes, including Mustang pins and T-shirts, plus the grand prize, a 30-minute, ESPN-produced VHS video on the life of the Mustang ... so far! To join Ford in saluting the Mustang, GO FMC.

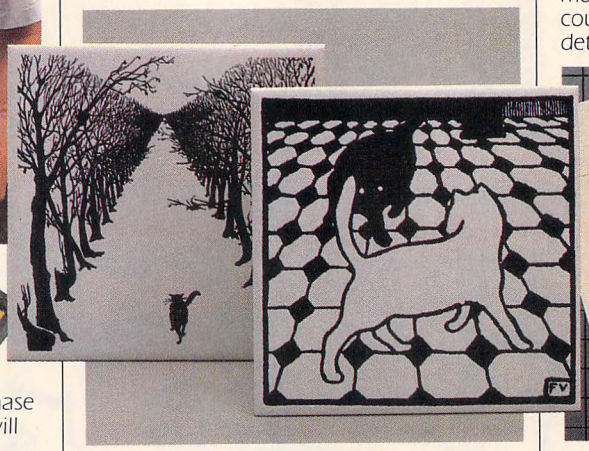
Games Galore salutes CompuServe with games and giveaways.

It's CompuServe's anniversary and Games Galore is celebrating! Shop during July and August and save 10 percent on all preschool and children's games. Make your purchase on July 10 or Aug. 10 and save even more: 10 percent on all games in the store and 20 percent on preschool and children's games. Note: These discounts do not apply to Summer Sale-A-Bration items.)

Drop by in July and request a free catalog or place an order, and you'll automatically be entered in a grand prize drawing. Leave your name and address during July and you could win *USA Trivia*, a great new game covering everything American—from geography to politics.

Come back in August and register for a second drawing. August's Grand Prize is *Inkblotz*, a fascinating game that uses inkblots in a unique new way.

For the best in games for kids of all kinds, GO GG.



Purrrfect presents from The Metropolitan Museum of Art.

Browse the new cat collection online. Featured items include cat tiles, cat and fishbowl coasters, and The Big Box of Cats notecards. For these and other feline finds, GO MMA.

In California, acquiring your dream car is stress-free with AutoVision.

Acura. BMW. Buick. Cadillac. Chevrolet. Honda. Jaguar. Mercedes. Toyota. Let AutoVision assist you in your next car purchase.

You know how frustrating and time-consuming car shopping can be. AutoVision offers an alternative to the stereotypically smooth sales pitch and hard sell through its Mall branch. If you're planning to buy or lease a vehicle in the California area, AutoVision can assist you in making the right decision with no hassle. Stop by for specifics. GO AV

Software Discounters opens Pre-Order Shoppe.

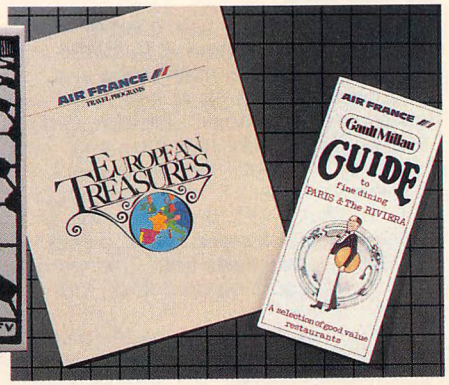
Don't miss out on the hottest new software of the season. Visit Software Discounters of America's new Pre-Order Shoppe, and order, in advance, titles that have not yet been released. New online lists, including expected release dates, are added constantly.

Be the first on your block to have next month's blockbuster. GO SDA

Win tickets to see Windham Hill artists, live!

During July and August, you could win one of five pairs of tickets to see the Windham Hill artist of your choice in concert. All who sign up for Windham Hill's new *Online Occasional*, a periodic newsletter featuring upcoming Windham Hill releases, special sales and artist performances, will be automatically entered in the random drawing.

Stop by Windham Hill and browse its online listing of artist appearances and music festivals. One of your favorites could soon be performing near you. For details and your chance to win, GO WH.



AIR FRANCE

Heureux anniversaire, a la France: Celebrate France's bicentennial with an Air France travel package.

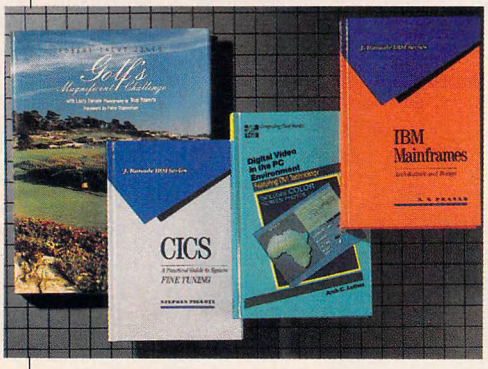
Bastille Day, July 14, marks France's bicentennial. Visit Air France for details on all that's happening. Online you'll discover details on dozens of tour packages, including Bonjour Paris and Monte Carlo Magnifique.

Air France flies to France from New York, Washington D.C., Boston, Houston, Los Angeles, Miami, San Francisco, Chicago, Philadelphia and San Juan. Online, you can request more than a dozen free brochures, including Air France's European Treasures, a map of Paris, and an Air France/Gault Millau Guide to fine dining in Paris and the Riviera.

To join the celebration, GO AF.

Three recent renovations: McGraw-Hill Book Co., Heathkit and 44 Cakes.

Three Mall stores have recently undergone major renovations: McGraw-Hill Book Co., Heathkit (formerly The Heath Co.) and 44 Cakes (formerly Desserts Direct). Stop by and see what's new in store!



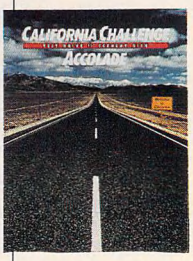
McGraw-Hill. Find new titles in the fields of computers, business and engineering, along with best sellers profiling sports greats and perennial reference sets. Don't forget to request your free copy of the new 1989 catalog, too. GO MH

Heathkit. Heathkit also has a free color catalog for you. Its 100 pages are packed with pictures and detailed descriptions of the latest Heath products—everything from build-it-yourself stereo kits to a complete laptop computer kit. The online catalog is completely new, too. Search by category for the best in the exciting world of kit-building. (Watch for two new departments—"What's New" and "Blockbuster Specials.") GO HTH.

44 Cakes. Don't believe that a beautiful gourmet cake can be shipped clear across the country and arrive in perfect ready-to-eat condition? Take a trip to 44 Cakes. Browse the online catalog of cheese cakes, gourmet cakes and classic cakes. All are made with 100 percent natural ingredients and contain no preservatives. 44 Cakes guarantees that your cake will arrive on time in perfect condition, and that it will be, quite simply, the best cake you've ever had. Seeing, and tasting, is believing. GO DS

Cool cars.
The Parked Car Hot Air Extractor. A solar-powered air ventilator that pulls hot, stagnant air out of your car to reduce its interior temperature by as much as 40 degrees on hot, sunny days. From Hammacher Schlemmer. GO HS

$32.95



The open road.
Purchase Test Drive II & Super Cars from Accolade and get The California Challenge free. This great package includes The Duel (Test Drive II) and two add-on disks, Super Cars and California. From Computer Express. GO CE

List Price: $85

$54.95

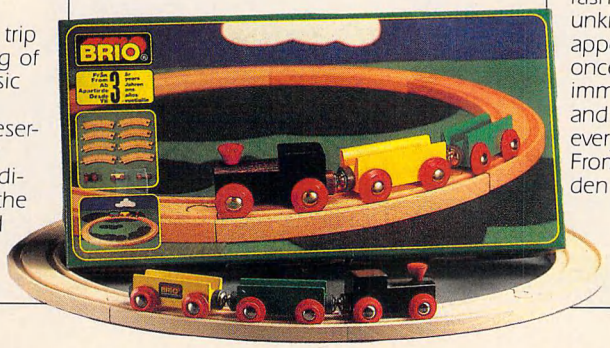
Russian *Monopoly*.
Comrades. A new game that takes you and your comrades to the Soviet Union to play *Monopoly*, Russian style. Housing shortages, party status, work quotas and secret police all play a part. From Games Galore. GO GG

$19.95

Starter train for aspiring engineers.
Brio Starter Set. Made in Sweden, a sturdy, wooden train set for ages three and up. From Hobby Center Toys. GO HC

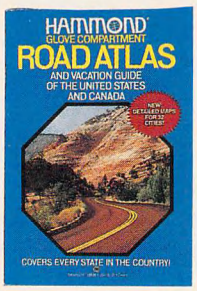
List Price: $29.50

$19.99



A raft made with couples in mind.
Double, French-style entertainment lounger. Moveable armrests and backrests. Dual beverage holders. Made of heavy-duty, 14-gauge vinyl. From Rin Robyn Pool 'N Patio. GO RR

$61.88


HAMMOND
GLOVE COMPARTMENT
ROAD ATLAS
AND VACATION GUIDE OF THE UNITED STATES AND CANADA
COVERS EVERY STATE IN THE COUNTRY!

Take to the highways.
The Hammond® glove compartment road atlas and vacation guide of the United States and Canada. From Ballantine Books. GO BAL

$3.95

Suggestive software.
Strip Poker II by Artworks. The real thing, with digitized graphics and voice. Meet Suzi and Melissa. Requires 512K, CGA. For IBM and compatibles. From Software Discounters of America. GO SDA

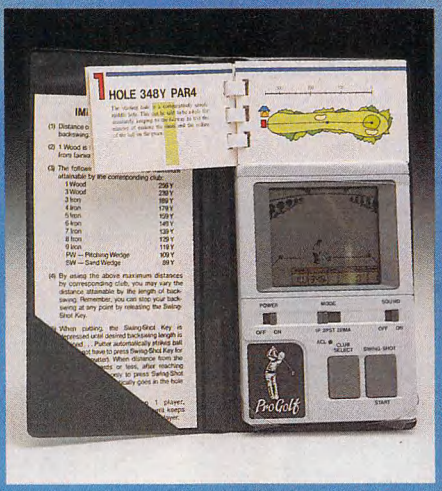
$25.00

Relieve the itch.
Poison Ivy cleaner by TECNU offers salvation! Use it within two to eight hours after exposure to poison ivy, oak or sumac, and it will prevent the rash. If you expose yourself unknowingly and the rash appears, apply the cleaner at once. It will relieve the itch immediately, inhibit spreading and speed healing. A must for every summer medicine chest. From Williams & Eeden Garden Center. GO WE

$12.95

Say goodbye to sinking golf balls.
Floating golf balls. A patented inner core gives these golf balls a specific gravity lighter than water, making them easy to spot around water hazards. Set of 12. From Hammacher Schlemmer. GO HS

A hole in one in hand.
Computerized hand-held golf game. Play 18 holes anytime, anywhere. The LCD graphics show the course with ball, player, fairway, sandtraps, ponds and green. From Sharon Luggage and Gifts. GO SL



Indoor fairway fun.
Condo golf. Great fun for amateurs or pros. From Bloomingdale's. GO BL

Seiko condenses scorecards and pencils into a credit card.
Seiko electronic golf scorecard. Keep track of your foursome's golf scores with state-of-the-art technology. This handy gadget totals strokes and putts and recalls up to 18 holes. From Sharon Luggage & Gifts. GO SL

PC putts and drives.
Mean 18 Famous Course Disk (Volumes II, III and *IV* from Accolade. Golf as it should be, with lifelike animation patterned after the pros. From Computer Express. GO CE

Play with the pros on your PC.
Jack Nicklaus Golf. Tee off on the most challenging 18 holes of major championship golf with the legend that hand picked each one. From Software Discounters of America. GO SDA

MEAN 18 Accolade
Accolade's Mean 18 FAMOUS COURSE DISK Volume II
Accolade's Mean 18 FAMOUS COURSE DISK Volume III
JACK NICKLAUS' GREATEST 18 HOLES OF MAJOR CHAMPIONSHIP GOLF
ACCOLADE

A golf iron that carries your keys.
Handsome key chains in the shapes of golf irons. From Executive Depot. GO ED

The 1989 Buick Open.

This year marks the 25th anniversary of the Buick Open, a major PGA tournament held each year at Warwick Hills Country Club in Grand Blanc, Mich. For the first time, the total purse for the tournament is $1 million, making it one of only 13 PGA tournaments to award $1 million or more to competing professionals. The tournament runs from July 25 through 30, with CBS providing network television coverage of the final rounds. Golf fans will find details at Buick Magazine. GO BU

Picnic in the park.

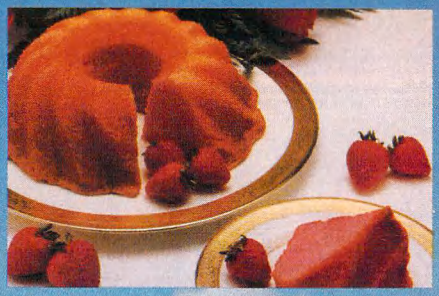
Planning a picnic in the park? Pack your basket with gourmet edibles from The Mall's Gourmet Food & Flower department. Here's a sampling of the tempting summer treats that await you online.

Pecan brownie pie.
For brownie lovers. A soft, fudgy center and plenty of pecans. From Pepperidge Farm. GO PF

Gourmet salad delights.
Three different salad selections, each in 12.5-ounce jars. From Florida Fruit Shippers. GO FFS

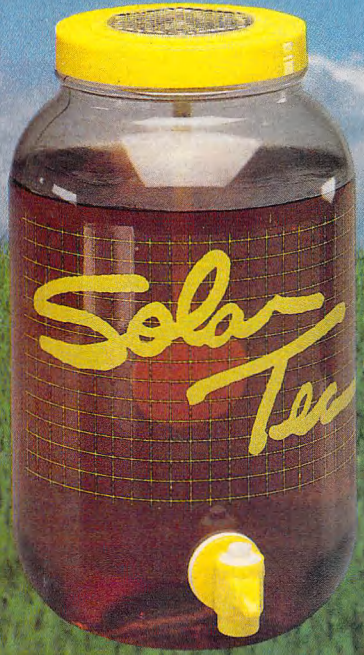
Simon's smokehouse.
Select from Edward's Virginia ham, Simon David's smoked boneless ham, Simon David's smoked turkey and smokehouse ribs, and Simon's sausage. From Simon David. GO SIM

Wild strawberry liqueur cake.
From Ultimate Taste Cakes. One and one-quarter pounds of pure pleasure. From Coffee Anyone ??? GO COF



Solar tea maker.
From Coffee Anyone ??? GO COF

Fruit flavored black teas.
Choose cherry, mango, vanilla or raspberry. From Crabtree & Evelyn. GO CR



Alamo Rent A Car opens online lot.

Alamo Rent A Car, one of the world's largest independently owned car rental companies, now servicing 80 percent of the United States and the United Kingdom, has opened a branch at The Mall. Each year, Alamo's fleet of more than 75,000 cars services more than 2 million travelers.

Unlimited mileage: every day, every city.

When you rent from Alamo there are no surprises ... just consistent quality and savings at all locations. At Alamo, air conditioning, automatic transmission and AM radio are standard on all domestic rentals. Luxury extras, such as power steering, AM/FM stereo and tilt wheel, are available on many of the larger cars. But the best feature is Alamo's unlimited mileage policy. You have unlimited, free mileage in every city.

Visit Alamo online and you will discover a list of Alamo locations; details on how each Alamo rental can earn you mileage credit in the airlines' frequent flyer progams; news on current Alamo specials; information on Alamo's corporate-rate program; and, most important, a toll-free number for reservations.

Also featured is news on Instant Alamo, an innovative personalized service program that speeds all steps of the rental process—reservations, rentals and returns.

Renting from Alamo can earn you frequent flyer mileage credits.

Whether traveling for business or pleasure, discover the benefits of renting from Alamo. For details, GO AL.

Alamo Rent A Car's grand-opening, free-connect weekend: July 15 and 16.

Insurance Information Inc. guarantees you the lowest insurance rates available.

If you currently own a term life insurance policy, take a trip to Insurance Information Inc. This unique service, recently featured in *Money* magazine, *Forbes*, *Better Homes and Garden*, and *Family Circle*, will show you how you could save hundreds of dollars on your policy—and get the same coverage.

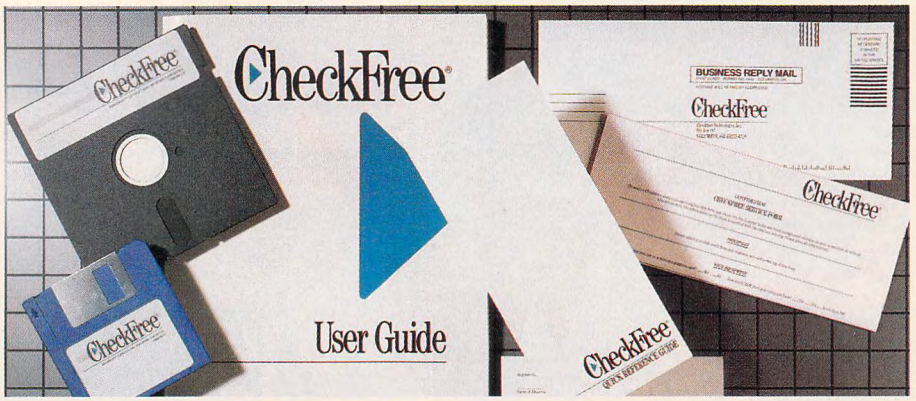
Insurance Information Inc. does not sell insurance, advice or counsel. What it does is provide information that enables you to compare your existing premium with published rates from the five least expensive insurance companies providing the same coverage. The fee for this report is only $50. There is no risk to you. You are guaranteed that the information received will enable you to save at least the fee—or it's free. Best of all, a convenient online electronic form makes ordering an insurance report fast and simple.

Auto and home insurance for NY residents, too.

If you're a resident of New York state, you also can order reports comparing your current auto and home insurance policies with the competition. This additional service will be available in other states shortly.

To analyze your existing insurance policies, GO II.

Insurance Information Inc.'s grand-opening, free-connect weekend: July 15 and 16.



Pay your bills—CheckFree.

Now, even if your bank doesn't offer computer banking, you can pay your bills "check free." To get started, stop by CheckFree, a new merchant at The Mall.

Founded in 1981, CheckFree is a nationwide personal electronic banking service that pays bills anytime, anywhere, to anyone, for any amount, using any bank, without any paperwork. In just minutes every month, you can pay your bills via your home computer. No checks to write. No stamps to lick. No paperwork to keep.

Here's how it works. Your CheckFree software includes built-in communications software. When you tell the computer to make a payment, the software automatically dials the CheckFree Processing Center in Columbus, Ohio, and completes your transaction. CheckFree links to more than 50,000 financial institutions through nationwide networks. In 1988 alone they moved nearly half a billion dollars in electronic payments.

CheckFree does more than just pay bills; it's an accountant, too. With the program, you get a completely automated checking account register that is updated instantly each time you make a transaction. Paying bills has never been easier.

Try it, risk free.

CheckFree knows that once you try its service, you'll be hooked. Sign-up online and the first month is free. Order the CheckFree Servisware and, if not completely satisfied, return it within 30 days for a full refund.

To get started on headache-free banking today, GO CF.

CheckFree's grand-opening, free-connect weekend: July 15 and 16.

Push Pedal Pull your way to your personal best.

Optimum fitness is now at your fingertips at Push Pedal Pull, a new Mall merchant offering the latest in professional fitness equipment. Featured online are rowing machines, climbers, treadmills, ski machines and stationary cycles from Precor, an industry leader.

Precor's computerized technology offers results you will feel and see while providing a complete cardiovascular workout. Consider the 815e Semi-Recumbent Stationary Cycle or the 718e Low Impact Climber. Each represents the latest in fitness technology.

Also featured online are fitness accessories, including an Accusplit pedometer, ankle and wrist weights, heart speedometers and weight sets.

718e Low Impact Climber

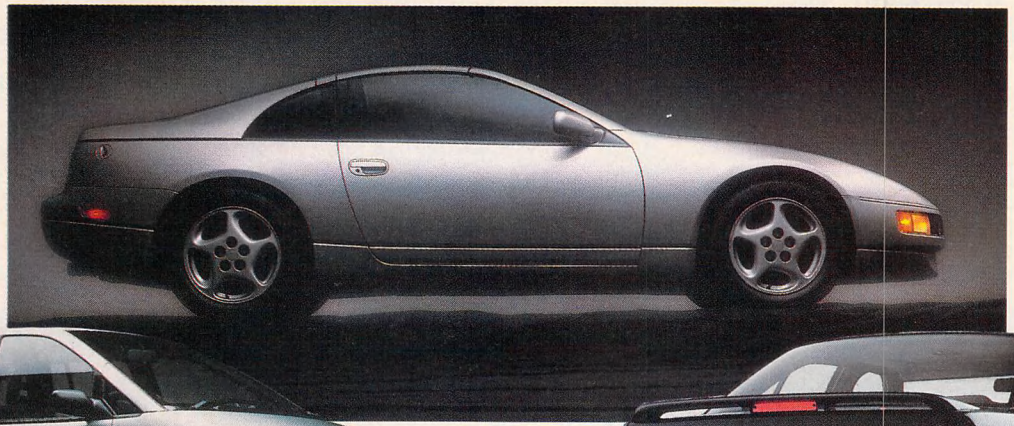
815e Semi-Recumbent Stationary Cycle

Push-Up Bars

Stop by and request Push Pedal Pull's free print catalog. It's packed with pictures and facts detailing the unique features of each machine.

Also, the equipment will complement a cross-section of lifestyles. Fitness converts looking to build a home gym or workout center. Post-bypass patients beginning an exercise regime under a doctor's supervision. Busy executives who must squeeze a workout in between meetings. Even the fairly fit who are merely looking to tone up a bit. At Push Pedal Pull all will find personal professional guidance in selecting the equipment that can help them achieve their personal best. GO PPP

Push Pedal Pull's grand-opening, free-connect weekend: July 22 and 23.



240SX

Axxess

Maxima

Nissan. Built for the human race.

"I've just driven one of the best sports cars in the world; one that's refreshing in style, balanced in feel and exhilarating in performance," wrote Dennis Simanaitis in the March 1989 *Road & Track*. He was talking about the Nissan* 300ZX.

The 300ZX is just one of the new vehicles featured at Nissan's new Mall showroom. Also in the spotlight are the 240SX™, the Axxess* and the Maxima*.

In its annual special issue, *Road & Track* had this to say about the Maxima: "It's certainly the best car in this class to emerge from Nissan, and if it's any indication of things to come, we say, 'Full speed ahead!'"

If you're in the market for a new car, or just in the mood for a little daydreaming, take a trip to the new Nissan electronic showroom. The complete Nissan lineup of cars, trucks and vans, including the four cited here, is on display. Specs on horsepower, transmission, suspension, seating and the manufacturer's suggested retail price are all there. So are comparisons with the competition. You also can order free four-color brochures for all vehicles featured. And, you can take the Nissan online survey.

Nissan understands that a car fulfills a number of human needs. And transportation is only one of them. Nissan. Built for the human race. To discover the difference, GO NI.

Nissan's grand-opening free-connect weekend is July 22 and 23.

*The Nissan name, logo and Sentra, Stanza, Maxima, 240SX, Pulsar NX, 300ZX, Axxess, Hardbody, Pathfinder names are used solely by permission of Nissan Motor Corp. in U.S.A.

Outdoor Outfitters: The great outdoors store.

A day on the lake pursuing the bite of a Big Mouth. A night spent sleeping under a canopy of stars miles from civilization. Hiking the Appalachian Trail. If you're an outdoorsman—or woman—take a short hike to new Mall merchant Outdoor Outfitters before your next excursion.

Anglers will find an array of name-brand equipment from G. Loomis*, Rapala*, Mepps* and others. Lures, rods, reels and tackle designed to help you land virtually any fish. There are pitching rigs for deep water cranks, jigging rigs for fishing in heavy cover, and a salmon steelhead rig for Alaska, the Pacific Northwest and the Great Lakes. Select the Mr Twister* Smallmouth Bass and Crappie Kit. Try Mepps Piker Spinner Lure Kit for walleye, northerns and arctic char. Or choose Mepps Trouter Kit for trout, bluegill, perch, whitefish and others. The fish will fall for you hook, line and sinker!

Campers, hunters and hikers will also rejoice in Outdoor Outfitters range of equipment designed to make base camp or the trail home away from home. Among the products featured online are a full line of Woods* sleeping bags from Canada, the Jan Sport* pack and the new Coleman* deluxe, 3-burner stove.

Woods' sleeping bag

Planning an expedition? Let your adventure start with an armchair viewing of one of Outdoor Outfitters' videos. Online selections include *Family Camping Volumes 1 and 2, Five Million Steps Hiking the Appalachian Trail,* and *Jimmy Houston's Guide to Crappie Fishing.*

Before heading for the great outdoors, head for Outdoor Outfitters' new Mall store. GO OO

Outdoor Outfitters' grand-opening, free-connect weekends: July 8 and 9, Aug. 5 and 6.

G. Loomis® rods and reels

Come to the Heartbeat of America, Today's Chevrolet.®

From the new Geo Prizm to the now-classic Corvette*, Chevy's got a vehicle for you.

Discover "The Heartbeat of America" at the new online Chevy Showroom. View the complete Chevy lineup, including the 1990 Lumina™ Sedan, the Corsica*, the Cavalier and, of course, the a car that's made the *Car and Driver* 10 best list for four years running. Whether you're in the market for a sporty convertible, a family sedan or a full-size van, Chevy's got it.

Online, you can request free full-color brochures of the complete Chevy lineup, read up on GMAC financing facts and check out the Motorsports Update and Accessories section. You can also make note of nearby racing events, then order a Chevy jacket or cap to wear to the track!

You can also test your recall with the Chevrolet Motoring Milestones Trivia. Or, if you've got a question, simply Talk to Chevrolet. You'll get a prompt reply.

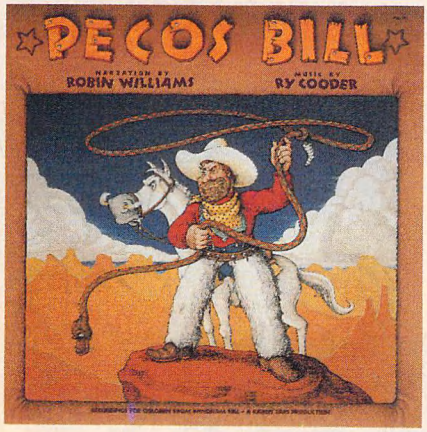
Chevy invites everyone to come on down! GO CHV *Come explore what's in store for free on six consecutive weekends: July 8-9, 15-16, 22-23 and 29-30 and again on Aug. 5-6 and 12-13.*

Blazer

Lumina

Geo Prizm

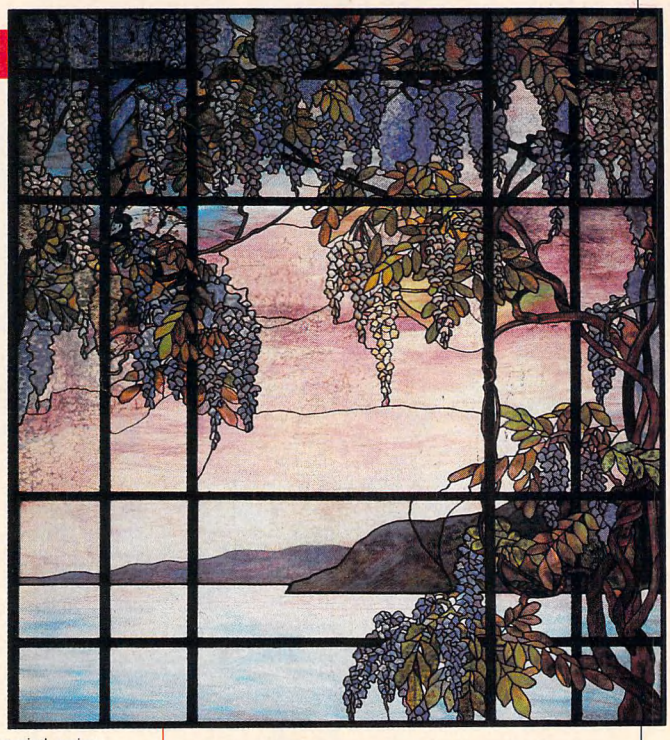
ART, MUSIC & VIDEO



Bedtime stories narrated by celebrities.
Storybook classics featuring narration by Jack Nicholson, Robin Williams, Cher and others. With original soundtracks by Ry Cooder, Mark Isham, Lyle Mays and more. Selections include *The Ugly Duckling, Legend of Sleepy Hollow,* and the Grammy Award-winning Robin Williams/ Ry Cooder *Pecos Bill.* Available in CD, cassette or LP. From Windham Hill. GO WH

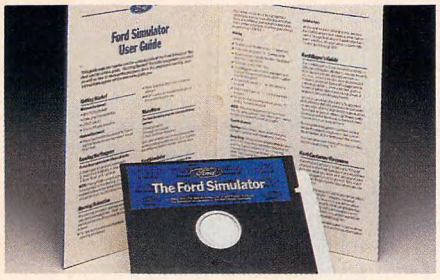
Savings on synthesized soundmakers.
Korg and Kawai Keyboard Synthesizers at unbelievable prices. From Music Alley Online. GO MAO

Chart toppers from two decades ago on CD and cassette.
Billboard Top Rock 'n' Roll Hits, various years from 1955-1973 and *Billboard Top R&B Hits 1960-1969.* Name your year and enjoy a blast from the past, at a special price. *Billboard Top Rock 'n' Roll Hits-1969,* for example, features "Aquarius/Let The Sunshine In" by The 5th Dimension, "In The Year 2525" by Zager & Evans, "Sugar, Sugar" by The Archies, "Na Na Hey Hey Kiss Him Goodbye" by Steam and "Build Me Up Buttercup" by The Foundations. Get the entire set at special savings. From AM/PM Music & Video. GO AM



Reproduction of a stained-glass Tiffany window.
View of Oyster Bay. A richly colored panel set into a lead frame with pewter chains for hanging. Adapted from a stained-glass window produced by the Tiffany Studios, New York City, in the early 1900s. Measures 13.25 inches by 12.5 inches. From The Metropolitan Museum of Art. GO MMA

AUTO

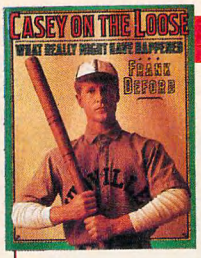


Shop for a Ford on your own terms.
The 1989 Ford Simulator brings a whole new meaning to the term "disk drive." Only $6.95. From Ford Motor Co. GO FMC

BUICK

Stay on track with Buick Motorsports.
Buick Motorsports' 1989 schedule. Online listings of auto racing events coast-to-coast. From Buick Magazine. GO BU

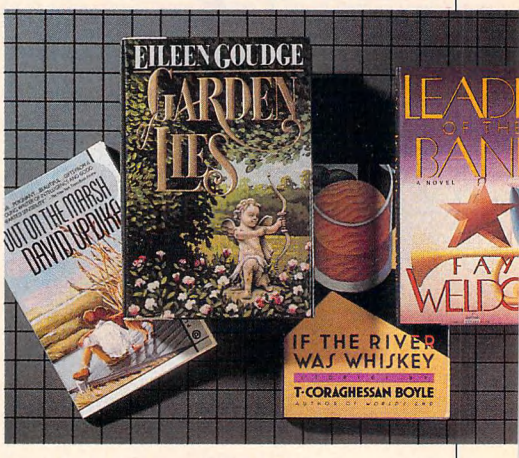
BOOKS/PERIODICALS



A book that alters baseball lore.
Casey on the Loose: What Really Might Have Happened. Frank Deford's delightful story about what might have happened 100 years ago with Casey at the bat. From Penguin Books. GO PB

A full year of cars—on sale.
Automotive publications. Subscribe online to a variety of speciality magazines including: *VW & Porsche, Super Chevy, Road & Track, Four Wheeler* and *Automobile Quarterly.* From American Magazine Subscriptions. GO AS

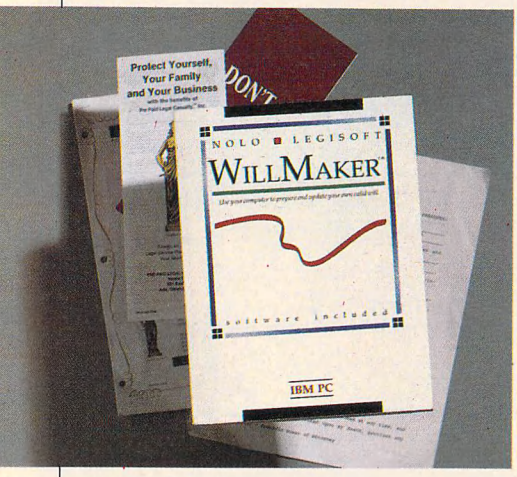
Reference texts for collectors.
Featured titles include *The Official' Overstreet Comic Book Price Guide, Nineteenth Edition; The Official' Price Guide to Science Fiction and Fantasy Collectibles, Third Edition;* and *The Official' Directory to United States Flea Markets, Second Edition.* From Ballantine Books. GO BAL



Sizzling summer reading.
Hot new fiction for the beach or backyard. Featured hardcover releases include Eileen Goudge's *Garden of Lies* and T. Coraghessan Boyle's *If the River Was Whiskey.* Among the new paperback selections are *Love, Sex and Money* by Sharleen Cooper Cohen and *Out on the Marsh* by David Updike. From Penguin Books. GO PB

WINDOWS ON THE MALL

BUSINESS & FINANCE



Write your own will.
WillMaker. Software for the IBM, Macintosh, Apple II and Commodore that lets you draft a legal will without a lawyer. Also, *Personal Lawyer* for the IBM. Helps you create legal documents on your personal computer, including Power of Attorney, Statement of Guardianship and Residential Real Estate Leases. From The Law Store. GO LA

Investigate alternatives to managing your investments.
Learn about mutual funds with the Dreyfus Online Primer. Then browse the Dreyfus Portfolio of Free Prospectuses. Select the fund that best meets your investment goals. From Dreyfus. GO DR

Dreyfus

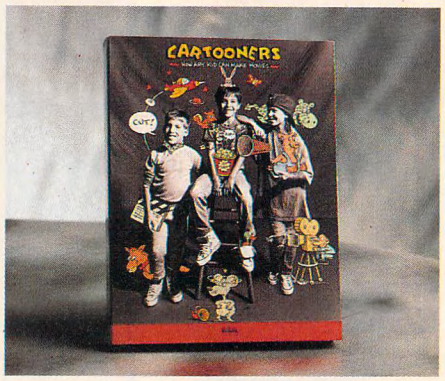
Stay on top of options.
Options tracking software for the IBM and Macintosh. For the IBM, consider *OpVal Advanced* by CalcShop, a program that lets you review 96 puts and calls in seconds. Or, opt for *Personal Option Advisor* by MarketSoft, software that stores data up to 50 contracts.

For Macintosh owners, there's *Options 80-A*, a program that analyzes calls, puts and spreads and does Black-Scholes modeling. From Investment Software. GO IS

CLUBS & MEMBERSHIPS

Handy deals on Tandys.
Enjoy lifetime membership with your first purchase. Take advantage of discounts on Tandy/Radio Shack products via 800 ordering. Laptops, personal computers, monitors, printers, add-ons and accessories are all showcased online. Also, fax machines from Sharp, Cannon, Brother, Toshiba and Tandy. From National Computer Warehouse. GO NCW

COMPUTING

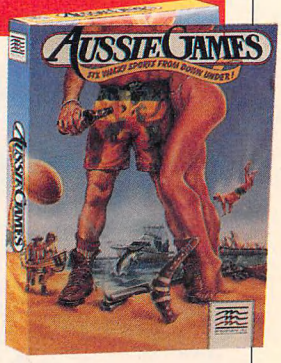


Escapes and escapades from Electronic Arts.
Escape the summer heat. Turn up the air conditioner and settle in at your personal computer for hours of fun with new selections from Electronic Arts. *King of the Beach-Pro Beach Volleyball* gives you spikes, slams, and bikinis. *Cartooners* makes it Saturday morning all week long. From Computer Express. GO CE

New for the Mac from Antic.
Flexform Business Templates, Volumes I and II. Provides you with an extensive library of professionally designed electronic business forms, you can fill in and print out.

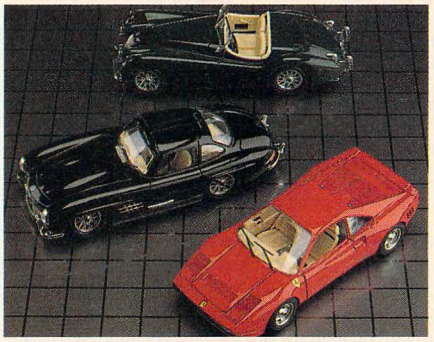
Hot-Spot, the graphics and text linking tool, has more than 50 power-packed point-and-click commands. Quickly create presentations, menu managers and applications from your own graphic and text files. From Antic. GO AN

Diversions from Down Under.
Aussie Games by Mindscape. From Software Discounters of America. GO SDA



Save time with templates and tutorials.
Template kits for 18 leading software programs, including *dBase III Plus, Lotus 1-2-3* and *WordPerfect 4.1/4.2* and *5.0.* Plus handy *Microref Quick Reference* guides designed to decipher puzzling commands and problems—fast. From A>Help Store. GO AH

GIFTS & COLLECTIBLES



Own a classic car made of metal.
Collector Series car models by Burago. Beautiful die-cast metal models, one-twenty-fourth scale, mounted on a display base with doors, engine covers and wheels that really work. Become the proud owner of a 1948 Jaguar Roadster, a 1957 Red Ferrari, and a 1928 Mercedes Benz. From Executive Depot. GO ED

Bears for canning, wearing.
Canned Alaskan brown bear and canned Alaskan polar bear—stuffed toy bears packed in cans! A pewter fishing bear, a jade grizzly bear and a made-in-Alaska sweatshirt sporting the Polar Bear Alaska Manufacturers Association emblem. From Ivory Cache. GO IV

Harris' wraps things up for free.
Free wrapping with every gift, every time. No matter what your selection—a classic cologne, a supple sunglass case of Porsche design, or a Montblanc Meisterstuck fountain pen—it will be handsomely wrapped free of charge. From Harris' Scent-Sations. GO HR

WINDOWS ON THE MALL

THE MEN'S SHOP

Hats on.
Coconut straw hat, pictured here. Also, straw safari hat. Both provide excellent protection for the eyes and face. Perfect for the beach or a picnic in the park. From Brooks Brothers. GO BR

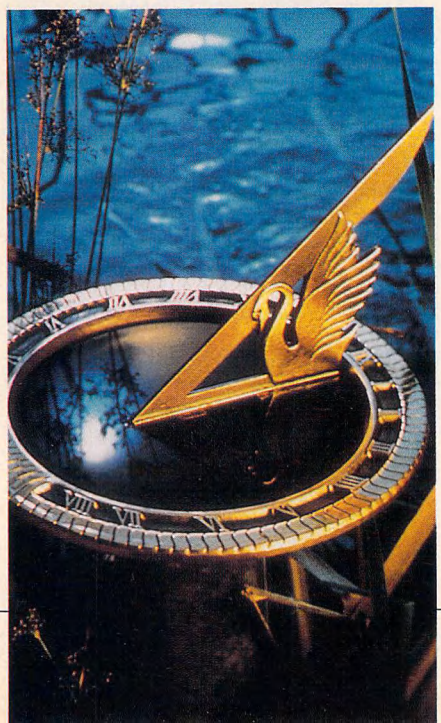
Watches fit for a museum.
Authentic timepieces. Select the Movado Museum watch, showcased in the Museum of Modern Art's permanent collection, or the Raymond Weil Fidelio Collection man's watch, a triumph of dignity and styling stunningly handcrafted in Switzerland. From Harris' Scent-Sations. GO HR

Warm weather wear.
Walking shorts and swimming trunks. Select Bermuda-length poplin walking shorts or slightly shorter pleated cotton shorts constructed of a rugged cotton twill. For beach and pool, consider the new cotton Madras swimming trunks or trunks with a rainbow of bold stripes. From Brooks Brothers. GO BR

GOURMET FOODS & FLOWERS

Last mango in August.
Tropical mangos. A unique tropical treat. High in beta carotene, too! Available through August in one-fifth and two-fifths bushels. From Florida Fruit Shippers. GO FFS

The season's most popular bathing spot for birds.
Bronze sundial/birdbath. Entirely cast of bronze. A gorgeous aesthetic addition to any garden. A shallow bowl base provides the perfect splash pool for birds. Emerging from the bowl is a graceful swan, casting her shadows on the water, and marking the passage of time. From William & Eeden Garden Center. GO WE



Onions that bring tears of joy.
Genuine Vidalia sweet onions shipped directly from Vidalia County, Ga. From Florida Fruit Shippers. GO FFS

Biscuits for tea.
Select Almond Shortbread, Sultana Crunch or Fruit Shrewsbury. Plus jams and marmalades to accompany. From Crabtree & Evelyn. GO CR

Popcorn on the cob.
From Old El Paso Chili Co., nine ears of genuine popcorn in an old-fashioned Mason-style jar. From Simon David. GO SIM

THE WOMEN'S SHOP

Silk from India.
Raw India silk for her. Featured pieces include a double-breasted silk jacket, a mid-calf silk skirt, and tropical-weight, worsted white slacks. From Brooks Brothers. GO BR

HEALTH & BEAUTY

Bloomie's makes sunning sensible.
The Tanning Boutique. An array of sun-care products including Pour Le Corps Body Bronzing Cream, Sun Eye Care, Sensitive Sun Cream, After Sun Mask, After Sun Shampoo and After Sun Shower Gel. From Bloomingdale's. GO BL

Swiss sun protection.
Swiss Sun Care Range. A unique line of sun-care products designed and developed in Switzerland. Pick your SPF: 15, 10, 8, 4 or 2. From Crabtree & Evelyn. GO CR

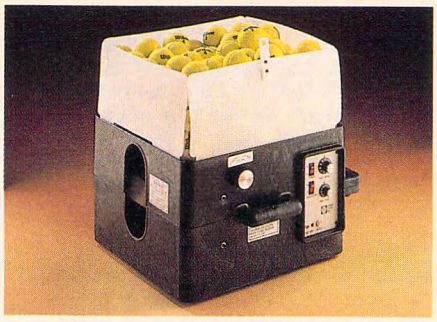
HOBBIES, TOYS & PETS

Webs and elixirs for the family.
Two new family boardgames: *Web of Gold* and *The Elixir Game*. From TSR Game Shoppes. GO TSR

Make them drool over your pool.
Everything you need to keep your pool in tip-top shape, from a fiber-optic pool and landscape lighting system to automatic pool cleaners to pool filter systems. From Rin Robyn Pool 'N Patio. GO RR

WINDOWS ON THE MALL

SPORTS & LEISURE



Tennis tutor.
The portable tennis machine. A rechargeable tennis ball machine. Shot speed and trajectory adjust from 10 mph "lobs" to 55 mph groundstrokes to challenge beginners and pros alike. Lightweight and compact enough to carry in the trunk of your car. From Hammacher Schlemmer. GO HS

Binoculars that focus automatically.
The Perma Focus 2000 binocular from Jason. These 7 by 35 wide-angle binoculars have a computer-designed optical system that automatically focuses at any distance from 40 feet to infinity. From Sharon Luggage & Gifts. GO SL

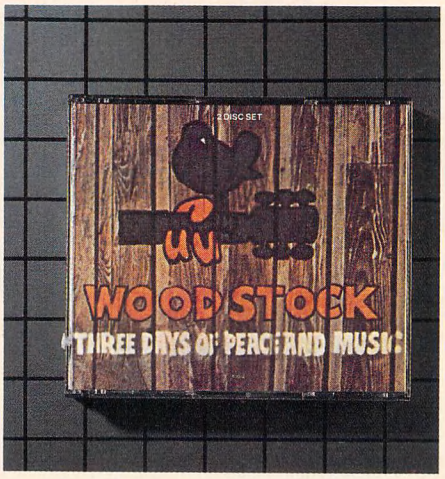
MERCHANDISE & ELECTRONICS

Walk a mile or more, and know it.
Jog-and-walk pedometer. A dual-function pedometer that accurately records the distance traveled and steps taken when walking or jogging. From Hammacher Schlemmer. GO HS

Smooth sailing.
Radio-controlled sailboat. A new, easy-to-assemble Kyosho Fairwind sailboat kit. It's 61.5 inches tall by 35 inches long. From Heathkit. GO HTH

Stylish sunglasses that block what's harmful.
Revo sunglasses. Top-of-the-line exclusive sunglasses with distinctive styles that screen out 100 percent of harmful ultraviolet and infrared sun rays. Save 15 percent on all styles through Aug. 31. Free brochure, too. From Sharon Luggage & Gifts. GO SL

FUN & GAMES



A groovy, far-out, like-wow-man contest!
AM/PM Music & Video invites you to test your rock 'n' roll recall with a "By the Time We Got to Woodstock" nostalgia quiz commemorating the 20th anniversary of the now infamous gig. Whose idea was the concert? What song was performed first? Who called the concert "Breakfast in Bed for 500,000"? Was it really 20 years ago? (And are we really that old?) Take AM/PM's multiple-choice stroll down memory lane, and you could walk away with a *Woodstock* CD or video. Enter anytime during July or August. No purchase is necessary. All who correctly complete the quiz will be entered in a random drawing for one of the five prize packages. For details, visit AM/PM Music & Video today. GO AM

And don't forget ...
Buick Magazine's Monthly Heritage Quiz (GO BU) and Tele-Charge's Monthly Theatre Buff Brain Buster Quiz (GO TC).

TRAVEL & VACATIONS

Great getaways.
Discover more for less with resort condominium rentals. Plan a fall foliage trip to New England. A trip through the wine countries of San Francisco. An endless summer of sun in Hawaii, Mexico or the Caribbean. From Endless Vacation Travel. GO EV

Let your pet escape the demands of daily life, too.
Planning a summer vacation? This year, bring along the family pet. Listed online are more than 600 motels—most of them three-star quality—in all 50 states that welcome dogs, cats and other furry family members. From Traveling With Your Pet. GO TP

THE WINNER'S CIRCLE

Congratulations to CompuServe's 500,000th member.

Welcome Richard Dokken of Northern California who, last March, became CompuServe's 500,000th member. Much to his surprise, Dokken was showered with gifts from many Mall merchants. Among the gifts he received were The Calling Card from Sharon Luggage & Gifts, the CD of his choice from Windham Hill, a pound of Jamaican Blue Mountain from Coffee Anyone ??? and a disk holder from Computer Express. Dokken also received a $100 connect-time credit. Here is his "thank you" letter to The Mall:

Dear CompuServe,

I would like to thank you for all the gifts. Wow! Being CompuServe's 500,000th member is quite a surprise. I had the CompuServe Membership Kit for two weeks, then set up my Telecom software. It was only lucky coincidence that I logged on when I did. My whole family is excited about the prizes, and I think they have already decided on who gets what. I have really enjoyed CompuServe so far. Keeping so much information so organized must be quite a feat. On top of all that, CompuServe is still very easy to use. I'm impressed.

Thanks again.

Richard Dokken

MALL DIRECTORY

ARTS, MUSIC, VIDEO

AM AM/PM Music & Video
CD Compact Disc Club *
CM The Classical Music Club
DA Discovery Artists
MMA Metropolitan Museum of Art *
MAO Music Alley Online
RT Record and Tape Club *
TC Tele-Charge—Theatre tickets
VC The Video Club *
WH Windham Hill ■ *

AUTO

AL Alamo Rent A Car †
DU ABC Compu-Lease
AQ Autoquot-R
AV AutoVision
BU Buick Magazine ■
CHV Chevrolet ■ †
FMC Ford Motor Co. ■ *
NI Nissan ■ †

BOOKS/PERIODICALS

AS American Magazine Subscriptions
AN Antic Software
BAL Ballantine Books
BB Brady Books †
CS *Computer Shopper*
DJ Dow Jones & Company
DR Dreyfus
MH The McGraw-Hill Book Co. ■ *
MC *MacUser*
MER Mercury House
NW Newsweek
PCC *PC/Computing*
PM *PC Magazine*
PB Penguin Books ■
BK Small Computer Book Club
TL Time-Life Books
WB Walden Computer Books

BUSINESS & FINANCE

IN Auto Write
INC Business Incorporating Guide
CF CheckFree †
DJ Dow Jones & Company
HRB H&R Block
HRA Halvorson Research Associates
II Insurance Information †
IS Investment Software ■
LA The Law Store
TKR Max Ule Discount Brokerage
NN NewsNet

CLUBS & MEMBERSHIPS

CM The Classical Music Club
CD Compact Disc Club *
NCW National Computer Warehouse Club
KC New York Kennel Club
RT Record and Tape Club *
SAC Shoppers Advantage
BK Small Computer Book Club
TL Time-Life Books
VC The Video Club *

COMPUTING

AN Antic Software
ATI American Training International ■ *
CDA CDA Computer Sales ■ *
CE Computer Express * ●
CS *Computer Shopper*
PD The Computer Mart †
DM Direct Micro ■ *
FWC Fort Worth Computer
IS Investment Software ■
MC *MacUser*
MM Marymac Industries
MNU Menu
NCW National Computer Warehouse Club
NAR New Age Resources *
OI Ocean Isle Software
OS Online Store
PT Paradise Technology
PCC *PC/Computing*
PM *PC Magazine*
PP Programs Plus
SAF Safeware Computer Insurance ■
SDA Software Discounters of America
SP Some Things Special
WB Walden Computer Books ■ *

GIFTS & COLLECTIBLES

BL Bloomingdale's
COF Coffee, Anyone ???
CT Countree Reflections
CR Crabtree & Evelyn ■ *
DS 44 Cakes ■
DD Don's Dollhouse & Miniatures ● *
ED Executive Depot ■ *
FFS Florida Fruit Shippers ■
FS Flower Stop
GC Godiva Chocolates ■ *
HR Harris' Scent-Sations
IR Indian River Citrus ■ *
IV Ivory Cache ■ *
MMA Metropolitan Museum of Art *
OL Olympic Gift Store ■ *
PF Pepperidge Farm ■ *
RM Rent Mother Nature ■ *
GR Annemarie G. Schaffer
SL Sharon Luggage and Gifts ■ *
SIM Simon David ■ *
SP Some Things Special
WK Walter Knoll Florist

GOURMET FOODS & FLOWERS

GC Godiva Chocolates ■ *
COF Coffee, Anyone ???
DS 44 Cakes ■
ED Executive Depot ■ *
FFS Florida Fruit Shippers ■
FS Flower Stop
IR Indian River Citrus ■ *
IV Ivory Cache ■ *
PF Pepperidge Farm ■ *
RM Rent Mother Nature ■ *
SIM Simon David ■ *
WK Walter Knoll Florist
WE Williams & Eeden Garden Center ■ *

HEALTH & BEAUTY

BL Bloomingdale's
CR Crabtree & Evelyn ■ *
EE Elite Eyewear ■ *
NAR New Age Resources *
PPP Push Pedal Pull ■ * †

HOBBIES, TOYS & PETS

DD Don's Dollhouse & Miniatures *●
GG Games Galore ■ *
HTH Heathkit ■ *
HC Hobby Center Toys
OO Outdoor Outfitters †
PW Petworks
TSR TSR Games Shoppe ■ *
WE Williams & Eeden Garden Center ■ *
TP Traveling with Your Pet

THE MEN'S SHOP

APC Apparel Concepts for Men ■
BR Brooks Brothers ■ *

THE WOMEN'S SHOP

BR Brooks Brothers ■ *
HR Harris' Scent-Sations
GR Annemarie G. Schaffer

MERCHANDISE & ELECTRONICS

ORD CompuServe Store
HS Hammacher Schlemmer ■ *
HTH Heathkit ■ *
MI Miltrobe † ● *
SAC Shoppers Advantage *

OFFICE SUPPLIES & SERVICES

TN Auto Write
DM Direct Micro ■ *
EX Executive Stamper
FR First Run Computer Services
LA The Law Store
SAF Safeware Computer Insurance ■
SC Stationery Center ● *

SPORTS & LEISURE

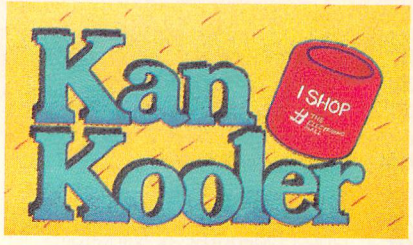
EE Elite Eyewear
GG Games Galore ■ *
HS Hammacher Schlemmer ■ *
OL Olympic Gift Store ■ *
OO Outdoor Outfitters †
PPP Push Pedal Pull ■ * †
RR Rin Robyn Pool 'N Patio ■

TRAVEL & VACATIONS

AF Air France ■
EV ENDLESS VACATION TRAVEL *
OA Official Airline Guide
SL Sharon Luggage and Gifts ■ *
TP Traveling with Your Pet

■ Offers free print catalog.
* Denotes electronic order form for use with print catalog.
● Credits cost of print catalog toward purchase.
† Denotes new merchant.

GOINGS-ON AT A GLANCE



FUN & GAMES

NEW! AM/PM Music & Video's Woodstock Trivia Quiz GO AM

Buick Magazine's Monthly Heritage Quiz GO BU

NEW! Chevy Highway Memories Quiz GO CHV

Tele-Charge's Monthly Brain Buster Trivia Quiz GO TC

SALES, SPECIALS & SWEEPSTAKES

Ford Motor Company's Salute to the Mustang GO FMC

Games Galore's Anniversary Salute Win *USA Trivia* or *Inkblotz* GO GG

Windham Hill's Concert Ticket Sweepstakes GO WH

Walden *Computer* Books' free shipping and free gifts GO WB

Plus Mall-wide Sidewalk Sales GO MALL

JULY

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Free Shopping*

Mall-wide free-connect GO MALL
July free shopping: July 24, 25, 26
(Come celebrate Christmas in July!)

Alamo Rent A Car GO AL
July free shopping: July 15, 16

AM/PM Music & Video GO AM
July free shopping: July 22, 23

AutoVision GO AV
July free shopping: July 29, 30

Buick Magazine GO BU
July free shopping: July 8, 9

Chevy Showroom GO CHV
July free shopping: July 8, 9, 15, 16, 22, 23, 29, 30
August free shopping: Aug. 5, 6, 12, 13

CheckFree®

CheckFree GO CF
July free shopping: July 15, 16

Endless Vacation Travel GO EV
July free shopping: July 8, 9, 22, 23
August free shopping: Aug. 12, 13

Games Galore GO GG
August free shopping: Aug. 26, 27

Heathkit GO HTH
July free shopping: July 15, 16

Insurance Information GO II
July free shopping: July 15, 16

Nissan GO NI
July free shopping: July 22, 23

Outdoor Outfitters GO OO
July free shopping: July 8, 9
August free shopping: Aug. 5, 6

PUSH Pedal PULL

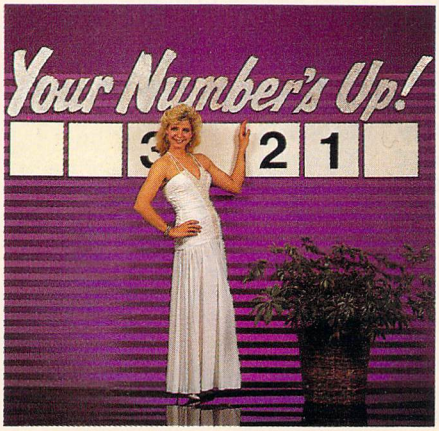
Push Pedal Pull GO PPP
July free shopping: July 22, 23

* Though connect-time charges are waived on these dates, any applicable communications surcharges remain in effect.

Coming Attractions

Watch for the following in the Sept./Oct. issue of *Go Mall*:

- Grand Opening stories on many new merchants, including *Business Week*, Brady Books and MacWarehouse.
- Back-to-school specials from Computer Express, Direct Micro and The Stationery Center.
- The Mall's 4th Annual "Your Number's Up!" contest. Your chance to win one of hundreds of prizes, including a super grand prize!

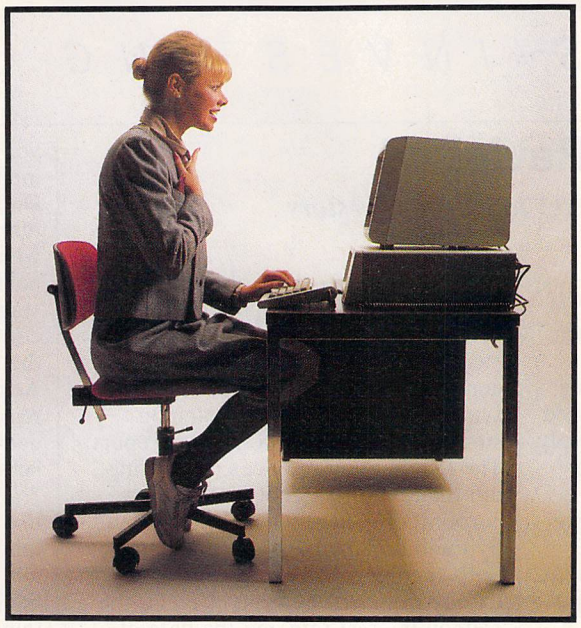


WANTED: NEW MALL MERCHANTS

Do you have a product or a service of interest to CompuServe subscribers? Consider opening a Mall store. Contact the sales office for details.

Call 614/457-8600. Send an EasyPlex to 70007,1476. Or write:

The Electronic Mall®
5000 Arlington Centre Blvd.
Columbus, OH 43220
614/457-8600



Sell yourself

(some insurance).

Insurance made easy: AutoWrite™ introduces coverage-via-modem—so you can (literally) *write your own policy*.

Now you can tap into a user-friendly program that lets you window-shop for insurance the way you window-shop for clothes. No obligation to buy. With AutoWrite, you can apply for up to $100,000 of life insurance protection...or up to $700 a week in supplemental hospital cash benefits. Online. All without leaving your chair.

AutoWrite makes you an informed buyer because the routine guides you gently through the insurance maze and shows you what questions to ask. It's easy, fun, and, best of all, looking's *free*. You risk nothing by browsing!

Access AutoWrite today. Buying insurance will never be the same.

How to Call **AutoWrite™:**

1. Access CompuServe.
2. Enter ***go in.***
3. Strike ENTER (return) key, follow prompts.

That's all there is to it!

AutoWrite™

Insurance that's *bought,* not sold.

a service of

American Eagle Insurance Agency

Two Neshaminy Interplex
Trevose, PA 19047-9905

GO OLI for more information.

Fixed Securities Revisited

Once-Stodgy Bonds Now 'Sexy' to Many Investors

by Mike Pietruk

Recent high interest rates have opportunistic investors looking for long-term investments that will guarantee these higher yields for years to come. Many are expressing renewed interest in fixed income securities such as bonds. Simply stated, a bond is a written promise to repay a specific sum of money at a specified future date, with interim interest payments made semiannually. Bonds are issued by businesses, government bodies and other organizations in need of funds to conduct operations.

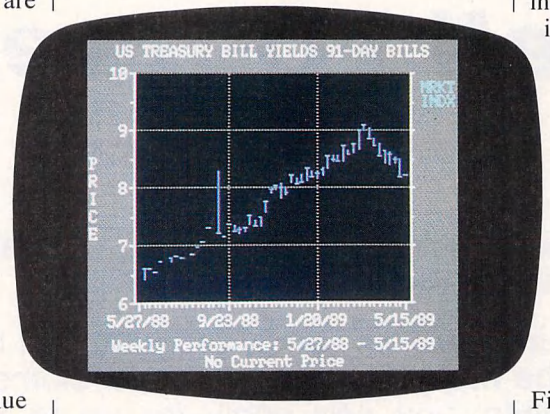
Several types of corporate bonds are sold by companies. Mortgage or secured bonds are backed by specifically pledged company assets such as real estate or machinery. Debentures, on the other hand, have no collateralized security and are backed only by investors' faith in the credit of the firm.

Municipal bonds differ from other securities because their interest payments are exempt from federal (and, in some instances, state and local) taxes.

Once issued, bonds are traded much like stocks and fluctuate in value in an inverse relationship with interest rates. Generally, bonds are less volatile than stocks. Bonds of longer maturity or lower quality tend to exhibit wider price swings.

To a large degree, the value of fixed income securities is a function of interest rates in general, so it is wise to monitor these trends. CompuServe carries historical data on a broad range of interest rates in the MicroQuote databases. Among key gauges are the prime rate (ticker symbol: PRMR), 91- and 182-day Treasury Bill returns (USTBA and USTBB), and the Fed Fund rate (FFRT).

Bond average indicators from Moody's, Dow Jones, Shearson Lehman and Salomon Brothers also are listed. Ticker symbols are shown for a broad spectrum of maturities and ratings from top quality AAA to the "less than investment grade" so-called "junk" debt. Users should note that in many instances averages are calculated only on a weekly or monthly basis. For a description of these symbols, which may be employed in any of the historical MicroQuote services, type GO INDICATORS and select Option 2, "Bonds/Yields." CompuServe's Bond Listing service (GO BONDS) is a one-stop source for debt instruments on companies. Simply type the ticker symbol of the underlying common stock and receive a two-section report. The first section provides identifying information on all debt issues for the corporation you request. It is headed by the full name of the firm and contains the bond's ticker symbol and CUSIP number, the type of bond, the coupon interest rate and the date of maturity along with the yield to maturity and the most recent price quote. The second section presents the quality ratings assigned to the issuer revealing the credit worthiness of the securities.



Screen was created using GO Trend

Another excellent source for locating potential investment candidates is Securities Screening (GO SCREEN). SCREEN permits you to quickly search through the vast universe covered by MicroQuote and customize a list to meet your specific needs. You can scan for 16 types of securities, including corporate bonds and the debt of the US Treasury and other federal agencies.

In addition to specifying classes of issues desired, you can indicate values for any or all of 21 parameters. Among those significant to bond valuation are coupon rate, current yield, maturity date, and Moody's and Standard & Poor's quality ratings. Reports are offered in a variety of formats, and the output may be stored in your MicroQuote file area for use in doing further analysis. SCREEN can save you countless hours of tedious investigation.

Regardless of how they are selected, you may be forced to reinvest at lower interest rates when the bonds mature. One approach to dealing with this potentially thorny dilemma is to construct what is known as a laddered maturity portfolio, which contains bonds with staggered dates of maturities to lock in current high returns while maintaining the flexibility of a short-term portfolio. As bonds mature, the proceeds can be reinvested either in continuing the ladder or any other way you believe market conditions warrant.

If you don't feel you have the expertise or time to develop your own portfolio, consider a mutual fund. These not only provide professional management of your money but also can further minimize risk by diversifying your investment dollars among hundreds of individual bonds—something few of us would ever have enough capital to do on our own. The No-load Mutual Fund Association maintains an online information area (GO NOLOAD) where you can browse for the fund that meets your specific objectives. No-load funds carry no brokerage fees.

Hundreds of no-load funds are listed, including those offered by such respected distributors as Fidelity, SteinRoe, Scudder and Vanguard. Typical are those sold by Fidelity, a Boston-based company that markets 14 bond funds. Fidelity's funds include short-, intermediate- and long-term US government, corporate and tax-free funds. There is even a global bond fund for those with an international perspective on investing.

More than 40 municipal bond funds are described by the No-load Mutual Fund Association. Some funds invest exclusively in tax-free debt issues of a particular state, which makes interest received entirely tax exempt for residents of those locales. States represented include California, Indiana, Michigan, Minnesota, New York, New Jersey, Ohio and Texas. Fund telephone numbers are found in NOLOAD. Investors also can request prospectuses online.

Most money managers advise their long-term investors to include bonds in their portfolios. Today's high yields make this an opportune time to give bonds—once considered too stodgy and conservative by many investors—a careful second look.

Mike Pietruk is a forum administrator of CompuServe's Investors' Forum and an assistant vice president of Preferred Savings & Loan in Chicago. His CompuServe User ID number is 76703,4346.

Online Resources Make Spreadsheets a Snap

by Mike Pietruk

Because they require only a few keystrokes to carry out a variety of customized applications, Lotus 1-2-3 and other financial spreadsheets have become popular tools. A resource for helping novices to master 1-2-3 is The Osborne/McGraw-Hill *Guide to Using Lotus 1-2-3, Second Edition* by Edward M. Baras. Now in its second edition, this comprehensive handbook provides an excellent tutorial—each chapter presents step-by-step directions for constructing worksheets.

The World of Lotus

An online source of information, advice and ready-to-use spreadsheets is the World of Lotus (GO LOTUS). Its main menu is a gateway to such Lotus-related information as company and product news, bibliography/course software and access to two forums.

Of particular interest is the Lotus Integrated Products Forum (GO LOTUSA) where novices can receive guidance from thousands of experienced users. Library 11 (Personal Finance) in the Products Forum contains public-domain and shareware spreadsheets that can be customized or run "as is." A comprehensive list of spreadsheets is maintained in Library 11 file LIB11.SUM.

An excellent choice for newcomers to this library is the Home Management System (HOMEMG.ARC), a shareware program and superb teaching aid that features checkbook, household inventory, loan analyzer and utility bill-tracking templates.

Another popular shareware program is the Family Budgeter (FAMBGT.ARC), which includes two 1-2-3 version 2 files for setting up annual and monthly budgets and monitoring expenditures.

If you're thinking of buying a new home or refinancing your present one, several spreadsheets in Library 11 can help you to efficiently evaluate your options. HSEHNTR.WKS automatically calculates mortgage payments, money requirements at the time of purchase, and the annual tax write-off from interest and taxes.

Analyze the short-term cost and the long-term payback of refinancing with REFINA.WKS, a spreadsheet that computes the cost of paying the loan discount points in cash or of borrowing the funds. A third number-cruncher, MORTRE.WK1, computes the cost benefit of renegotiating an existing mortgage (or other amortizing loan).

Financial Close-up

The spreadsheet user should also take a close look at the financial templates found in the Investors' Forum (GO INVFORUM). Forum Administrator Larry Ettelson recommends The Total Investor (TI123.ARC in Library 1), is a version 2.01 template for managing and analyzing security portfolios.

For those planning retirement, Ettelson suggests IRA.ARC in Library 7, a professional-level tool used by several major bank trust departments. IRA.ARC runs only with 1-2-3 version 2.01. Originally written to aid recipients of lump-sum distributions from qualified benefit plans, the template integrates cash flow data on IRA rollover and non-rollover assets and calculates cash flow projections for two to 40 years.

Bond holders will find much of interest in Investors' Forum Library 2, including a bond calculator, BONBIL.ARC, and RATES.ARC, the history of Treasury securities and the prime rate from 1976 into late 1988. The forum's complete catalog of Lotus 1-2-3 programs is in Library 10 file 123CAT.ARC. Many 1-2-3 files can be imported into other IBM-compatible and Macintosh-compatible spreadsheets. Arced files can be unarced on the Macintosh by using the ARCPOP.ARC utility program found in the Borland Programming A Forum, Library 5.

Direct Savings

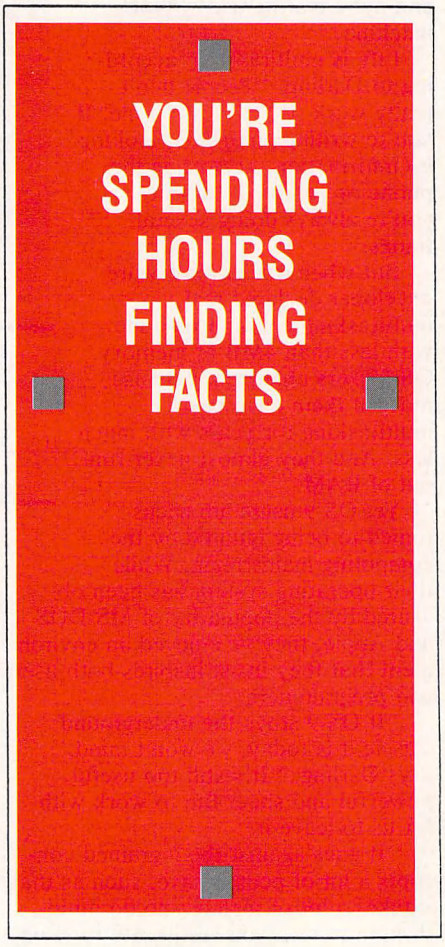
Those who regularly require security prices can use an output ticker file with a PRN extension to directly import data into 1-2-3 and compatible spreadsheets. To set up the ticker file, type GO MQUOTE. At the MquoteII! prompt, type EDIT QUOTES.TIC—or any file name up to six characters long—followed by a period (.) and an extension suffix of up to three characters.

Next, insert a line like the following at the file's top: //OUTPUT = QUOTES.PRN (or any other name with the PRN extension appended). Note that for the quotes to be 1-2-3 compatible, the output file name *must* contain the PRN extension. Type the issue identifiers (ticker symbols or CUSIP numbers), up to 20 on a line separated by commas. When you are finished, type /EX.

To activate your newly created ticker file, at any Issue prompt in a CompuServe financial program, type the @ sign immediately followed by the file name (such as @TICKER.PRN). Instead of being displayed on your monitor's screen, the requested prices are saved in the output file specified. To get the actual quotes to your computer, type FILTRN at the MquoteII! prompt. A series of menus guide you the rest of the way.

The data is stored in a format compatible with Lotus 1-2-3 and similar spreadsheets when an output file with the PRN extension is indicated. Error-free transfer is ensured via a protocol download. Many terminal communication packages, including AutoSIG, TAPCIS, CompuServe's Professional Connection and VIDTEX, support error-checking transfers using protocols such as Quick B and XMODEM.

Mike Pietruk is a forum administrator of CompuServe's Investors' Forum and an assistant vice president of Preferred Savings & Loan in Chicago. His CompuServe User ID number is 76703,4346.



OS-9 Users Commiserate

True Multitasking Environment Is Well-Kept Secret

by Randy Rendfeld

Some computer users wonder what good multitasking is when it's all they can do to run one program at a time.

"Unless you've been exposed to multitasking, you probably don't realize what a boon it is," says Pete Lyall, associate administrator of CompuServe's OS-9 Forum (GO OS9). "But once you've had it, you can't go back.

"Sometimes people run Microsoft Windows and say, "This is 'multitasking,' but that's just suspending one program while the other one runs."

"If I had to wait while a program was running, I would probably go nuts," says Kevin Darling, also an OS-9 Forum associate administrator. "When you start a program, for example a download, why should you have to go get a cup of coffee and not have the use of your machine?"

Life is multitasking, according to Darling. "People don't really work one task at a time. If you're writing an article, looking up information, answering the phone or yelling at the cat, you're always doing several things."

But when a major software developer declared real multitasking couldn't be done with less than 4MB of memory, OS-9 users chuckled, because most of them have been multitasking for years with much less. And they almost never run out of RAM.

Yet OS-9 users are accustomed to being ignored by the computing mainstream. While their operating system has been obscured by the popularity of MS-DOS and Apple, they've enjoyed an environment that they insist inspires both users and programmers.

"If OS-9 stays the underground classic it is today, we won't mind," says Darling. "It's still too useful, powerful and sheer fun to work with for us to leave it.

"It goes against the ingrained concepts a lot of people have, such as that it takes a lot of memory to do multitasking or that you aren't safe running more than one program at a time."

OS-9 is small, and loading it takes about 40K of memory. Its kernel is machine language, which gives it speed. It can be burned into ROM and allows not only multitasking but also a multiuser environment. It has automatic record-locking on files being accessed by more than one program. It allows programs to be preloaded into memory and called instantly by name; and the same program can be called by any number of times or by several users simultaneously. These are all features missing in one way or another from MS-DOS, OS/2, AmigaDOS and Unix.

OS-9 was developed in the late 1970s by Microware Systems Corp. After 10 years, Darling says OS-9 remains state of the art.

OS-9 most often is used on Motorola 6809- and 68000-based computers, such as the Gimix, Atari ST and Radio Shack Color Computer. An OS-9 port recently was developed for the Amiga, and attempts are under way to move it to the Macintosh. Darling says some OS-9 Forum members are working with Microware to develop a graphics interface common to all OS-9 computers, starting with the Macintosh II.

Many OS-9 converts came through the Color Computer 3, a 6809-based computer that is expandable to 512K of RAM. Under OS-9, CoCo users can run multiple screens with multiple windows. Yet, the CoCo often doesn't get much respect.

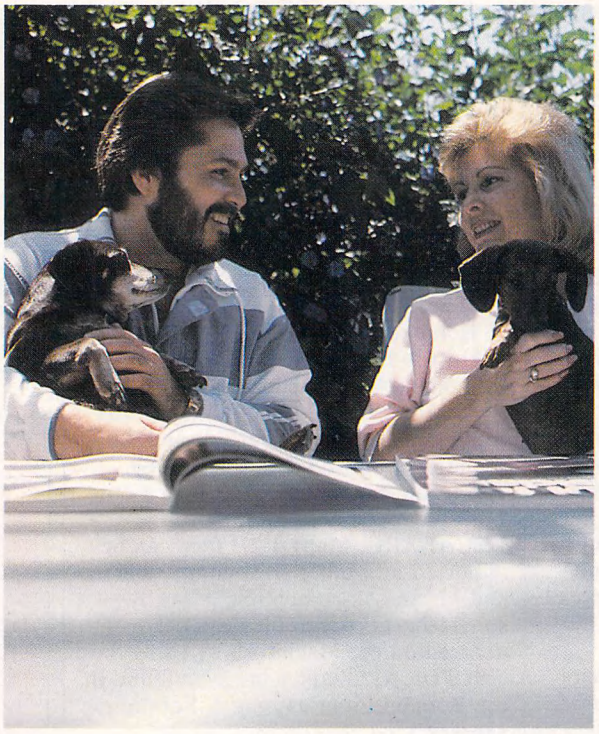
Lyall, senior software developer for Comtel Corp., may be the quintessential OS-9 user. He runs OS-9 in his home on a Gimix 6809-based computer with 1MB of RAM. His set-up includes eight serial lines and four parallel lines, two modems, two hard drives and "a small army of floppies." It runs two terminals, has a line linked to an IBM PC-AT, another to a stand-alone Unix system, parallel lines to dot matrix and daisywheel printers, and lines to a voice synthesizer and a BSR X10 Powerhouse home controller. The X10 constantly monitors and controls his home's lights and appliances.

It's not unusual for Lyall to be working on a C language program at one terminal while his fiancée is reading electronic mail at another. Meanwhile, a friend may connect remotely, browsing through the hard drives. This simultaneous usage of his OS-9 system occurs with little or no slowdown.

"I always wanted a system that was integrated, that could be used by several people at the same time, that could be a communications tie-point. That's what this has evolved to," says Lyall.

Often OS-9 Forum members describe their set-ups in forum messages. One recently admitted he had so many windows opened at once that he discovered he was accidentally compiling the same program in two of them simultaneously.

Darling sometimes opens 14 windows on his 512K CoCo 3, loads 134 commands and still has 92K of RAM left. But he usually runs four 80-by-24 text windows, and flips through them



"Unless you've been exposed to multitasking, you probably don't realize what a boon it is."

Lyall, fiancée Palmateer

with a hot key. Often he'll have an editor in one, a terminal program in another, and sometimes graphics or shell programs in the other two.

He also keeps an Atari ST and Amiga nearby. Darling has written a window driver for the Atari ST's version of OS-9 that allows the ST user to flip through windows via function keys.

Barry Bonds, an OS-9 Forum member, has connected terminals throughout his house to a 68000-based system. A running joke in the forum is asking him when he's going to install a terminal in his bathroom. His OS-9 system includes a database program that prints checks and mailing labels every morning for bills he should send out that day.

But Darling stresses OS-9's hardware independence. Often when a person switches computers, he must relearn a new system. But Darling envisions being able to compile an OS-9 program from an Amiga to a diskette or ROM, then run the same program on an ST, Mac II or possibly a NeXT computer.

The motto of the OS-9 Forum is: "There are no dumb OS-9 questions, except the ones you didn't ask." Forum members often find answers to their questions within a few hours, or sometimes minutes, of posting them.

"CompuServe is still the definitive support point for OS-9. It was the first, and it's where all of the mature talent has congregated," Lyall says.

Darling makes his living working with OS-9. "I wouldn't trade it for anything in the world. If I was smart, I would go learn the Mac, or IBM operating systems and become rich. But once you get into programming on OS-9, the sheer modularity, the simplicity and beauty, and the way everything fits, you can't bear to program on anything else."

Darling says that despite its obscurity, OS-9 is being used by the National Aeronautics Space Administration, the US Postal Service, Kodak, AT&T, General Motors, Honeywell, Ford, Hughes and Boeing. It is used in some critical patient hospital monitors, in advanced music synthesizers, and Sony-Phillips chose a form of OS-9 for their home CD-I interactive video disk information units, which could be on the market this year.

And it has been the No. 1 operating system in Japan for years, Darling says.

Randy Rendfeld, formerly an education reporter, is a free-lance writer and bureau news reporter for The Muncie (Ind.) Star. *His CompuServe User ID number is 76004,1470.*

Symantec Reorganizes Living Videotext Forum

by Paul Newkirk

What do Breakthrough Software Corp., Living Videotext and THINK Technologies have in common? All three have recently been acquired by Symantec Corp., a leading software company with award-winning applications and systems software.

Now Symantec is taking the CompuServe support forum it inherited with the acquisition of Living Videotext and transforming it into a support forum for all of its products.

"For about a year after the merger, we remained the Living Videotext Forum," says Judi Lowenstein, primary forum administrator for the Symantec Forum (GO SYMANTEC) and a company manager. "Occasionally, people would learn that Living Videotext was part of Symantec and come over to ask for support." At that time, however, formal support on CompuServe for other Symantec products was not in place.

At first, Lowenstein tried to respond to questions about other products as best she could, and eventually a non-Living Videotext product was given a share of the forum shelf space. Says Lowenstein, "After the release of SUM (Symantec Utilities for Macintosh), we started getting questions about it on the forum, so we decided to set up a forum section for it."

When the issue of altering the forum came up, Lowenstein played the part of forum advocate. "It became an issue of maintaining support for the old Living Videotext Forum while turning it into an asset for all our customers and for our company."

One of the obvious cosmetic issues that she had to deal with in the transformation of the forum was getting all of the company's products into the forum under one name. But a more nuts-and-bolts issue for the company was setting up the personnel and procedures side of the forum support. "One of the primary goals for the forum was to get support people from each product group online to answer questions." Now there are 10 assistant administrators for the forum, and many have either developed or co-developed the products they support. In addition, many of the company managers check into the forum periodically to answer questions.

Besides the technical support from company personnel, many users of the products help each other through the forum, using the message threads to talk about how they use the products.

One unique aspect of this forum comes from the fact that Symantec markets and supports languages such as THINK's LightspeedC and THINK's Lightspeed Pascal. "The forum is also intended to provide a forum for developers who are using our languages," says Lowenstein. "They can go online and ask questions of the people who wrote the languages, and they can get sample code from the libraries."

Also in the libraries are patches, trial-size versions or demos, sample templates for the outlining programs and tips for power users. Plus, all company announcements about updates, new versions of products, upgrades and press releases are posted. "It is the quickest and most reliable place to find information about Symantec products," says Lowenstein.

Paul Newkirk is a free-lance writer based in Columbus, Ohio. His CompuServe User ID number is 70000,1036.

WE CAN HELP YOU FIND FACTS IN MINUTES

From accounting to video technology, IQuest has the reference databases you need to find facts fast.

GO IQUEST at any ! prompt.

IQuest℠
Shorten Your Information Quest

Worldwide Friendships Form Online

by Randy Rendfeld

Artists Only

"Divina" left Evansville, Ind., for Dublin, Ireland, to be with "Druid." They met on the CB Simulator (GO CB).

Gary Zumaris, of Thousand Oaks, Calif., corresponds with his best friend, Suzuko Nakajima, through EasyPlex mail (GO EASYPLEX). Nakajima lives in Toyko.

These four CompuServe members have discovered that limitations of distance and concerns about appearance can give way to international friendships or, in the case of "Druid" and "Divina," engagement.

Their friends on CB know Greg Kelly and Kristen James by their handles, "Druid" and "Divina." Kelly began using the CB Simulator in March 1988 because he found it easy to meet people of like minds with whom he could relate on technical and personal levels. Then, James says, Kelly got lucky and met her. They've lived in Dublin since August 1988.

Joyce Fuller of Mt. Laurel, N.J., known on CB as "Buttercup," has traveled as far as London to meet fellow CBers. She sometimes tries to explain to the uninitiated why she uses the CB Simulator: "I tell my offline friends that this is a place I come to meet others, to interact. I can go with my nails not done and meet my friends anytime, 24 hours a day."

Fuller feels that she can learn more about a person by talking in CB than from meeting face-to-face. "The nice part about CB," she says, "is that you meet someone from the inside out. You judge them on their heart and values, not on what kind of jeans they wear."

The quality of those CB meetings depends on the values of the people sitting at the keyboards, says Pat Phelps, CompuServe manager of electronic conferencing products. "It is like stopping and talking with everyone at the airport," she says. "There are going to be people you are not interested in. But if you take the time to get to know them, there are going to be some absolutely charming people."

Some CompuServe members from afar, such as the Kobe BBS group in Japan, may simply want to learn more about American customs, slang, food, technology or ideas through CB. Two International Friendship Conferences, arranged at the Kobe group's request, were conducted last year in CB with American, Canadian and Japanese participants.

Phelps says the Kobe group's desire

to meet with others in CB was fueled by curiosity, fascination with US customs, "and a chance to be good world neighbors." Since then, CompuServe has installed a channel on the CB Simulator called "The Summit" to encourage international meetings.

By the end of March 1989, CompuServe had more than 20,000 overseas members. Most were Japanese. A gateway was developed earlier this year between CompuServe and Japan's NIFTY-Serve, a Tokyo-based information service similar to CompuServe, according to Jim Ryan, CompuServe director of international marketing.

A CompuServe member who speaks Japanese and uses a Japanese-character terminal now can access NIFTY-Serve by typing GO NIFTY. "Once you pass the gateway, you're in the world of the Japanese," Ryan says.

World neighbors who participate in the TAPCIS Forum's International Section (GO TAPCIS, Section 6) gathered in Paris for dinner on May 14. Joan Friedman, a TAPCIS forum administrator from New Haven, Conn., says most in-person meetings of TAPpers result from one forum member visiting a particular city and everyone who is reasonably close joins in for a party. In the case of the Paris get-together, Friedman was in France on vacation and other TAPCIS members from France, Belgium and The Netherlands gathered in Paris.

For a couple of members, it was "Hello again." For example, Dick Kahane, who is an American living in Paris, and Philippe Auphelle, who is French, first met when Jeff Gulliford, who is located in The Netherlands, noticed they were both in Paris and suggested they get together. The Kahanes and the Auphelles subsequently had dinner in Paris with Jay Trachman, a Fresno, Calif. radio consultant who had mentioned on the TAPCIS Forum that he would be visiting Europe with his son. Kahane and Auphelle also electronically met Lambert Mayer, a French-Canadian businessman in Paris, through a mutual friend in Columbus, Ohio. As a result, when Mayer had questions about his TAPCIS set-up, Kahane and Auphelle offered online assistance and then visited him in person to get his system running.

Carrying out the theme of meeting TAPCIS members throughout the world, Friedman, on a recent business trip to Tokyo, made special arrangements to be on a flight piloted by TAPCIS Forum member John Deakin of Japan Air Lines.

Denis Dornoy, who connects to CB from Copenhagen, speaks French, English, German, Danish and Swedish, and he says he's gotten a chance to exercise those languages with native speakers. In CB, where he began logging on in December 1987 in search of intelligent conversation, he's known as "Leif Eriksson."

"I'm from Scandinavia, and I am electronically exploring America," he says, explaining his handle. "Besides, it attracts other Scandinavian users."

Gary Zumaris, who says he rarely writes letters in longhand, recalls meeting his friend Suzuko Nakajima on CompuServe three years ago. "I started looking for someone I could write to in another part of the world," he says. "I was not looking to find anyone special, just someone I could write to and learn about his or her culture and country."

Nakajima recalls how difficult it was for her to write in English to Zumaris. "I threw myself into hard work to reply to him because I was struck with the sincerity of his friendship," she says.

"Now we write about more personal things in our lives," Zumaris says. As their relationship grew, they began exchanging gifts, pictures and videotapes of their families. They exchange letters at least once a week.

Zumaris and Nakajima rarely talk about computers, and never about the relationship between the United States and Japan. "This is not a relationship based on the way two governments feel toward each other," he says. "We are just two people who live in different parts of the world. I would feel the same about Suzuko if she were from South Africa or lived in Moscow. She has become my best friend."

Zumaris met Nakajima face to face when her family came to California in August 1988. "We parted company late at night in front of Disneyland," Zumaris says. "Suzuko had tears in her eyes. We became one family." Now they are making arrangements for Nakajima's 9-year-old daughter, Kaori, to live with the Zumaris family and attend school in Thousand Oaks, Calif.

"The computer and CompuServe have been important to this growing friendship," Zumaris says. "I know that I would have never started this if I had to write each letter in longhand."

Randy Rendfeld, formerly an education reporter, is a free-lance writer and bureau news reporter for The Muncie (Ind.) Star. *His CompuServe User ID number is 76004,1470.*

Join CB Club and Save

CompuServe offers three pricing plans for members who enjoy using the CB Simulator for more than a few hours a month:

- $75/month Flat Rate Plan: Unlimited use of the CB Simulator on weekends and from 7 p.m. to 8 a.m. on weekdays (local time at point of network connection).
- $25/month and $4/hour Plan: 24-hour a day use of the CB Simulator.
- $100/month and $1/hour Plan: 24-hour a day use of the CB Simulator.

Members receive a reserved CB handle with each plan. Modem speed may be 1200 baud or lower. Communication surcharges apply. For details and to sign up, type GO CBCLUB at any CompuServe prompt.

FREE IN JULY
KNOW THE FACTS BEFORE YOU MAKE A PURCHASE OR NAME A NEW PRODUCT

IQuest Product Lines Scan calls up databases that contain information on a specific product, while Tradename Scan identifies existing uses of a trade name.

Both scans are free, this month only.

GO IQUEST at any ! prompt.

IQuest℠
Shorten Your Information Quest

GO OLI for more information.

Get the Latest News On Hollywood Hotline

by Holly G. Miller

Only in Hollywood Hotline™ can you track the tour history of the Beatles, learn that Liv Ullmann and Beethoven share a birthday, check TV's prime-time listings for 1948, and produce a dot-matrix likeness of Ann-Margret.

While such trivia is fun, it's probably not the reason many CompuServe members have been checking the Hotline (GO HHL) daily since 1982. Fast-breaking entertainment news, posted every afternoon in announcement-like "scoops" of 30 words each, is the main attraction.

"I find that CompuServe members go to a lot of movies," says Hotline founder and editor Eliot Stein. "While they may not be interested in gossip—and this is not *The National Enquirer* by any means—they want to know about new TV shows and movies going into production, and they want to read the film reviews."

From Hotline headquarters in Reno, Nev. (the move from Los Angeles was made several months ago), Stein and his staff are in constant contact with a network of reporters who feed them news via telephone, fax and computer. The sources of most information are publicists affiliated with the networks, production companies and performers. These professionals hear the news firsthand and can vouch for its validity. This is important to Stein, who is scrupulous in his research and refuses to transmit rumors.

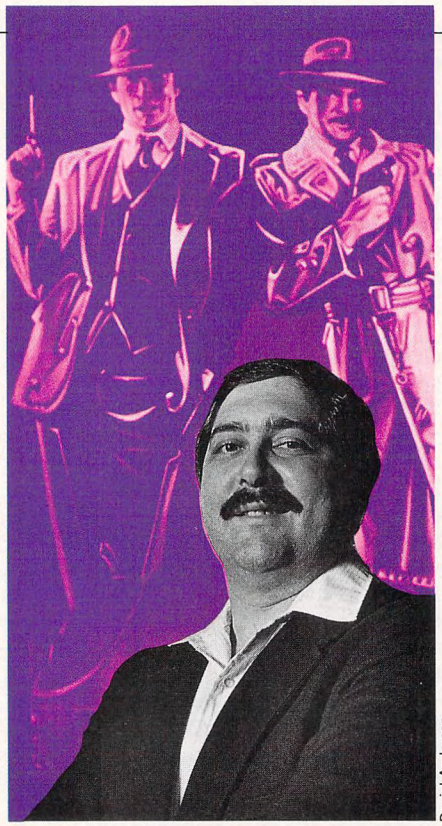
Stein keeps a log of conversations his staff has had with entertainment personalities, and the list reads like a *Who's Who in Hollywood* directory.

"Just in the last few months we've talked with Bob Hope, Debbie Reynolds, everybody on 'Alf,' Florence Henderson, Robert Stack, Donald O'Connor...."

And the list goes on.

"You develop relationships and contacts over a number of years," says Stein. "You try to get information from them before they give it to anybody else. Often we get news from actors and production people involved in projects. We hear things in advance, but we stick to news that is official. We've built a reputation that we don't print gossip. We have enough interesting things to write about without that."

Because Hotline provides show business news to radio stations, newspapers, magazines, audiotex and online databases, entertainment information sometimes comes into the HHL clearinghouse in one form and goes out in several forms. A phone interview with a major film star may be the basis for a long newspaper article, and an interesting fact that emerges during the interview may be included online.



Daniel Anderson

Avid moviegoers want facts: *Stein*

In addition to the daily news items, Hotline offers current ratings of the top 10 television shows, based on the percentages of homes tuned into the shows; the top 10 motion pictures; the top 10 single recordings; and the top 10 albums. These are updated weekly as sales and viewing statistics become available.

For persons looking for guidance on which films to see and which to avoid, Hotline offers several options. First, there's the "official" list of how the movies are faring at the box office (Option 4 on the HHL Menu—"Ratings"). Then there are the informal groupings of four HHL categories: "Must See! Get Right in Line"; "For an Entertaining Evening at the Movies"; "You Feel Like Catching a Movie"; and " 'Casablanca' Is on TV Again Tonight." While these groupings give an indication of a film's merit, longer Hotline reviews fill in the details.

"We have five film reviewers," says Stein. "We try to convey some of the plot without giving it away. We let people know what the movie is about, and we provide observations."

A surcharge, in effect for several years, was dropped by HHL in January. This was good news not only for users who like to keep up to date on Hollywood happenings, but also for trivia fans who enjoy testing their wits in ShowbizQuiz. Choices here include a general showbiz IQ test, plus specialized quizzes that cover the "Twilight Zone," "Star Trek," "Wizard of Oz," "Gone with the Wind," "Star Wars," and such personalities as Frank Sinatra, Judy Garland, the Three Stooges, Clint Eastwood, John Wayne and the Rolling Stones.

"These are multiple-choice, interactive games that cover new Hollywood, old Hollywood, films, TV and music," explains Stein. He wishes he could provide users with even more, but "there are just so many hours in a day."

As it is, HHL is a one-stop, full-service arts outlet that offers both entertainment and information about entertainment. Much of its success can be credited to Stein who, several years ago, saw a way of meshing technology and show business. With a background in the performing arts and advanced degrees in educational technological communications, he put the two together and Hotline emerged. Unlike other products on CompuServe, his didn't need to be adapted for electronic submission; it was created for the new technology, and later was adapted to the more familiar media of newspapers and radio.

"This was a brand new field back in the 1970s, and I was aware of things that some people weren't," he says of his college days. "It became apparent to me that this technology was going to cause things to happen."

The next addition to Hotline will be a feedback area for users who want to share ideas, to let Stein know what they like and what they don't like about Hollywood Hotline. His rule about not discussing show-biz gossip is enforced here, too. Experience has taught him that problems can surface when his hotline becomes a grapevine.

"We will not answer questions about celebrities," he confirms. "We did that years ago, and people were calling to ask Bruce Springsteen's home phone number!"

Holly G. Miller, a free-lance writer and college professor from Anderson, Ind., is a contributing editor of The Saturday Evening Post *and* Indianapolis *magazine. Her CompuServe User ID number is 70007,2345.*

At The Movies: Cineman Syndicate

by Holly G. Miller

Jay Brown suggests that newcomers to the Cineman Syndicate database (GO CINEMAN) think of the service this way: Imagine you have been to an early movie and you come out to a line of people waiting to go in. Someone tugs on your arm and asks, "Was it any good? Should I see it?" You stop long enough to give a quick evaluation, complete with a final thumbs-up or thumbs-down appraisal.

"That's what Cineman does," says Brown. "We see the movie before you do, and we know the good ones."

As founder and overseer of the 14-year-old Cineman Syndicate, Brown views about 100 movies a year. Additional staffers "chase" other films in other cities. In December, an electronic version of their commentary—searchable by title, genre and star—was added to the CompuServe entertainment lineup. Included are lists of new film releases, reviews, coming attractions and box-office reports. Mini-reviews give plot synopses; the length of the films; film types (comedy, drama); pertinent comments (the presence of profanity, nudity); and ratings of great, good, fair, boring or poor.

"The rating of a new film is one person's opinion," explains Brown. "We ask ourselves: Was the film interesting? Was it compelling? Did it have good acting? Directing? Strong script? Was it silly? Stupid? Of course, just because it may be silly and adolescent doesn't mean it won't make a lot of money. A lot of them do."

Data on more than 5,000 films are in Cineman's archives, and Brown hopes to expand his online library (currently more than 1,000) to include many classics that date back to the early movies. His decision of whether or not to file a review of a vintage film is based on the popularity of the stars, the merit of the story and if the movie earned any Academy Awards. Forgettable "B" films are not revived for review, but current lackluster movies are considered fair game for Cineman's critical darts.

As an insider, Brown knows that the way a film is released often is an indication of its value. "If it's a good, intelligent movie and one that will get critical acclaim, the film companies open it in a major theater in New York, Chicago, Los Angeles and Toronto," says Brown. "They know they're going to get good reviews, and they want word of mouth and the reviews to spread. By the time the movie gets to neighborhood theaters, it's already been talked up.

"If it's a dog or a silly movie, the studios don't have screenings for the critics. They spread it all over the place, get it into all the theaters, take the money and run. That kind of film usually makes a lot of money initially and then collapses at the box office, and something else takes its place."

If Cineman makes prospective moviegoers more knowledgeable, it performs the same service for book buffs and compact disc collectors. Brown has an arrangement with *Kirkus Reviews*, an established, New York-based book review newsletter, to offer capsule previews and selected longer reviews of upcoming books. These are posted online several weeks before the books are available in bookstores, alerting buyers to the name of the author, the publisher, the topic and the release date. Electronic reviews often appear long before the newspaper versions.

Musical recordings also are previewed in advance of product availability by Richard Santoro, a veteran reviewer with more than 10 years' experience. When it comes to offering an opinion on contemporary music, Beethoven fan Jay Brown says of Santoro: "I take his word for it."

Holly G. Miller, a free-lance writer and college professor from Anderson, Ind., is a contributing editor of The Saturday Evening Post *and* Indianapolis *magazine. Her CompuServe User ID number is 70007,2345.*

Get the Soap Scoops Anytime

by Michael Houdeshell

If the most devastating crisis in your life lately was a missed Daytime Drama (as they're now reverently called) or if your idea of the dilemma of the ages is which to watch—"Another World" or "One Life to Live"—then take heart. No need to trawl the channels any longer, remote in hand, time-sharing your attention. Soap Opera Summaries (GO SOAPS) are available on CompuServe.

Not only can you browse plot synopses stretching back nearly two months for the dailies, but you also can review the weekly consequences of J.R.'s juggernaut ethic over the past five months, savoring his villainy as it comes to bitter fruition. Or find out who was the victim of last week's stiletto-heeled vengeance. Et tu, Alexis?

If the lurid lives of the characters aren't enough to sate your hunger for scandal, you can get inside gossip about upcoming plot twists and cast changes with the Soap Report. And for the hard-core viewer, complete cast lists for all the daytime and prime-time soaps are available online.

The obsessed can even find out a star's birthday and ponder its astrological implications, or send a favorite actor a birthday greeting using the fan mail information listed under "Write the Soaps!" For the birthdays of nefarious characters, tasteful gift givers might consider enclosing a $100 bill bearing a thoughtfully scrawled message like the following: "You have wrecked my life but—mark my words—I will be back. And you'll find out you've trifled with the wrong person this time, oh yes, damn you [disdainful laugh]."

Reading worth writing for.

If you're looking for some good reading, you've just found it. The free Consumer Information Catalog.

The Catalog lists about 200 federal publications, many of them free. They can help you eat right, manage your money, stay healthy, plan your child's education, learn about federal benefits and more.

So sharpen your pencil. Write for the free Consumer Information Catalog. And get reading worth writing for.

Consumer Information Center
Department RW
Pueblo, Colorado 81009

U.S. General Services Administration.

One of the top 10 places to live and work: *Columbus cityscape, Scioto River*

Look Homeward, Columbus

CompuServe's "Hometown" Combines Burgeoning Business with Heartland Charm

Editor's note: CompuServe members throughout the world know of Columbus, Ohio, if for no other reason than it is the location of CompuServe headquarters. But what else is there about Columbus to put it "on the map"? In this issue celebrating the 20th anniversary of CompuServe and the 10th anniversary of the CompuServe Information Service, we thought readers would like to know a little more about the character of the city where it all began.

by Teresa Woodard

Recently rated the third best city for livability by the US Conference of Mayors, Columbus is being "discovered" nationwide. *Newsweek* named Columbus one of America's top 10 places to live and work. A recent *New York Times* article touted the city's downtown resurgence. And *US News & World Report* ranked Columbus fifth among US cities where "business is best."

Home of the Ohio State University Buckeyes football team, the Ohio State Fair, the late author James Thurber, Jack Nicklaus and the famous Muirfield golf course, Columbus has gained a reputation as an "All-American city."

Downtown Attractions

One way to start exploring Ohio's capital city is to take a walking tour of downtown, starting with the Ohio Statehouse.

Within a one-block radius of Capitol Square, you'll find historic and contemporary theatres. The Ohio Theatre, an elegantly restored movie house, is the site of concerts and special events, and home to the Columbus Symphony Orchestra and BalletMet. Like the Ohio Theatre, the Palace Theatre has been restored to its former glory; it is home to Opera/Columbus. The new 800-seat, state-of-the-art theatre in the 25-story Riffe Center for Government and the Arts is the site of performances of the city's 60-year-old professional acting company, Players Theatre.

Outdoor concerts and other entertainment are summertime favorites at the Riverfront Amphitheatre, a floating stage anchored at the downtown bank of the Scioto River. Other outdoor concerts, ranging from classical to rock, take place at various locations from neighborhood parks to corporate headquarters' lawns. One especially popular summer concert series is the Columbus Symphony Orchestra's "Picnic with the Pops."

Native Communities

Navigating your way to the neighborhoods surrounding downtown, you'll find a rich mix of cultural communities.

German Village, nestled in an area less than a mile south of the city center, is a 19th-century community of 1,800 restored homes, 100 shops and numerous restaurants. Home to the

country's first kindergarten, this 233-acre historic neighborhood is listed on the National Register of Historic Places. The annual spring Haus and Garten tour gives visitors a peek at 10 of the neighborhood's homes and gardens. Each year, the Village celebrates its cultural heritage with an Oktoberfest—complete with German food, beer, music and dancing in the Village's Old Brewery District, a $70 million residential, retail and office renovation project that includes 17 former brewery buildings.

Located immediately north of downtown is the Short North, a busy restaurant and gallery strip. Renovation along North High Street is still under way. Here, local actors have formed an experimental theater company; hair-styling salons feature monthly art exhibitions; and galleries invite urbanites and suburbanites to enjoy wine and cheese as they join the "Gallery Hop" on the first Saturday of each month. On these festive nights, the sidewalks are jammed with gallery-goers—from artsy punkers to Brooks Brothers-clad yuppies. More than 35 art galleries, as well as antique and clothing stores, bars and restaurants, and a jazz club welcome the throng.

Sights Not to Miss

Exploring one of the city's visual arts centers is another way to spend an afternoon. The Columbus Museum of Art, with its outdoor sculpture garden, and the Cultural Arts Center, a renovated state arsenal, display a variety of art, from works of the old masters to contemporary artisans and local craftsmen.

A museum with a different tack is the Center of Science and Industry (COSI), a favorite stop for curious children of all ages. Four floors of interactive exhibits—many incorporating computers and listening devices—allow visitors to delve into science, technology, health and history. Other COSI highlights include the Jeffrey Coal Mine, planetarium shows, a street of yesteryear with a working old-time movie theatre, and a Kidspace area for small children.

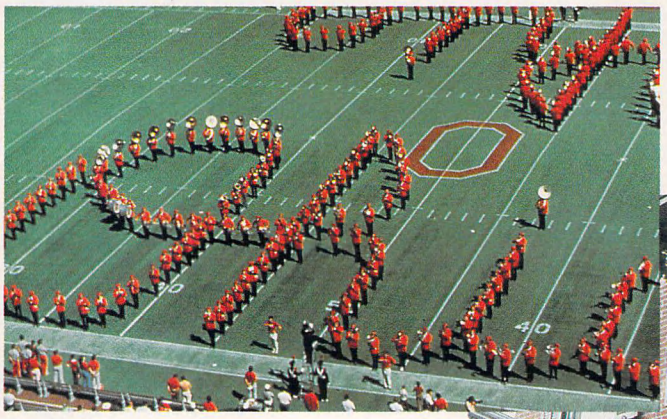
On the city's northwest side is the Columbus Zoo, one of the fastest growing zoos in the country. The zoo has won national acclaim for its success in breeding species such as the cheetah, polar bear and lowland gorilla. Be sure to visit the exhibit featuring Colo, the world's first captive-born gorilla, and her three-generation family. Maybe you'll catch a glimpse of zoo director Jack Hanna, who is a frequent guest on such television shows as "Late Night with David Letterman."

Festivals and Special Events

Typifying the quality of special events the city attracts is "Son of Heaven: Imperial Arts of China," the largest exhibition of historic Chinese art and artifacts ever seen in the United States. Columbus and Seattle, Wash., are the only two US cities to host the event. The 220 objects in the exhibition span 26 centuries, from pre-imperial China to the beginning of the 19th century. "Son of Heaven" continues through September 4. Tickets may be purchased at the door or through Ticketmaster (800/525-9000).

The Greater Columbus Arts Festival, held along the riverfront in the downtown area each May, draws top artisans from throughout the country and 700,000 visitors during its week-long run.

Red, White and Boom, an annual Independence Day fireworks display, has been touted as one of the best in the Midwest. Thousands gather along the downtown banks of the Scioto River for a spectacular fireworks presentation synchronized to music simulcast by a local radio station.



Football favorite: *Ohio State*

The Ohio State Fair, held annually in August, is the nation's largest state fair. More than 3 million annual fair visitors come to enjoy big-name entertainment, championship livestock shows and sales, agricultural displays, arts and crafts exhibitions, horse shows, concessions and amusement rides.

Spectator Sports

Columbus is host to Big Ten college football and basketball, the Columbus marathon, Professional Bowlers' Association matches, harness and thoroughbred horse racing, and baseball with the Columbus Clippers, the farm team for the New York Yankees.

The Memorial Golf Tournament, one of the classic stops on the PGA tour, is another attraction. According to *Golf Digest*, Muirfield is "one of the few courses built since World War II to land a spot among the elite First 10." Watch for Jack Nicklaus and company at the 18th hole during the tournament.

Ohio State University's Buckeyes draw crowds of 90,000 to Ohio Stadium for Big Ten football in the fall. The hardest game tickets to get are for the annual OSU-Michigan showdown.

The premier running event in town is the 26.2-mile Columbus marathon, which attracts an international field of 4,000 runners each November.

In addition, Columbus is home to Scioto Downs, a major harness racing track. Nearby Delaware hosts the famed "Little Brown Jug" race for pacers every September at its county fairgrounds. The Brown Jug is the middle leg of the pacing triple crown and attracts crowds of more than 30,000.

Old-world ambiance: *German Village*

Dining Out

The more than 500 restaurants in the Columbus area offer a potpourri of dining experiences, from ethnic and elegant to theme and fast-food.

A sampling around town includes The Refectory, situated in a 19th-century restored church in northwest Columbus, offering a vast wine list and a menu of American favorites such as Dover Sole. Seafood fans will also enjoy Fifty-Five on the Boulevard. Imaginatively set in a renovated downtown warehouse, it is among local food critics' favorites. Nearby, One Nation, offering a full range of American cuisine, also features a glass-enclosed outdoor elevator that carries visitors to the 38th floor for a spectactular view of the city and, during the day, the surrounding countryside as well. Another popular downtown restaurant, The Confluence Park, overlooks the Scioto River from the west bank for an equally impressive view.

German Village offers a variety of outdoor dining experiences—from the elegant Lindey's to the traditional German bier stube, Schmidt's Sausage Haus. Other ethnic area restaurants feature Chinese, Thai, Indian, Italian, Greek and Russian food.

Popular contemporary, bistro-style restaurants around town include Max & Erma's, TGI Friday's, Rocky's and The Cooker.

If you stop at a fast-food restaurant in Columbus, there's always the possibility that you'll happen to see the chain's founder. The city has been labeled "Fast Food USA" because it is home to Rax, Wendy's, G.D. Ritzy's, Sister's Chicken and Biscuits, and White Castle.

Shopping

From antique shops and boutiques to specialty stores and massive retail outlets, Columbus' retail sector continues to expand. Coming in August is the 150-store downtown mall, Columbus City Center. In addition to the anchor department stores, such as Chicago's Marshall Field's, the mall's other stores will include Gucci, Ann Taylor and Columbus-based The Limited—a store that has gained an international reputation.

Setting Sail for 1992

Five hundred years after Christopher Columbus brought the Old World to the New World, the city of Columbus will bring the two together again to celebrate the Quincentennial Anniversary of the discovery of America.

A national commission is planning the 1992 celebration, which will include Ohio's capital city along with other locations in the United States, Italy, Spain, Portugal and the Bahamas.

Among the top five celebration proposals cited by the Quincentenary Jubilee Commission is Columbus' $50 million international floral and garden exposition, "Ameriflora." With more than 3 million visitors expected worldwide, "Ameriflora" will grace 160 acres of land on three city parks with elaborate floral displays and fountains. The event begins in April 1992 and continues for six months.

Other activities planned for the 1992 celebration include a visit to the Columbus Zoo by two giant pandas from China; riverfront concerts, special events and other attractions; the US Olympic men's marathon trials; an $8 million refurbishing of the grounds around the state capitol building; completion of a $100 million downtown retail center; and several major international art exchanges.

Teresa Woodard is associate account executive at Paul Werth Associates, and assistant editor of Discover Columbus *magazine.*

Forum's Travelers Trade Destination Advice

by Gayle Brown

Travel guides are a main source of reference for hopeful travelers, but what happens when the guide is out of date or the information, while perhaps not incorrect, is misleading?

"I remember having to travel to Orlando on business," says John Matura, new forum administrator for the Travel Forum (GO TRAVSIG). "I booked a room at a hotel, which, according to the guidebooks, was a nice place to stay. But after talking online to someone who lives in the area, I learned that this hotel was on the wrong side of a major highway. You had to wait about 45 minutes to make a left-hand turn against traffic to get into the parking lot—something that would have made my stay inconvenient, to say the least."

Matura changed his reservation and saved himself some freeway frustration. "You can't get this kind of information from a guidebook, but someone who lives or has traveled there can give it to you," he says. "This is the magic of online travel services."

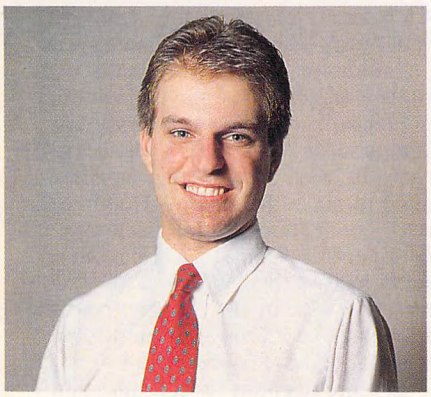
Matura says the most common mistake people make in planning trips is not researching their destination to find their desired travel experience.

Destination information is important, but today's travelers also want to experience what life is like there. "There is no typical traveler anymore," Matura says. "We used to be satisfied with buying a package—airfare, hotel, bus. We now want to experience the culture. It is not enough to go to London and visit the Tower anymore—you can see that on television. The hows and whys of travel are much more important. Advice on where to go, eat and stay—maybe it's a college dormitory and not a hotel—to get a sense of the real London is invaluable."

The more information a traveler has, the better satisfied he or she will be with a planned vacation. Matura says it's the difference between going into a travel agency and saying "I want to go somewhere warm the second week of February and I have $600 to spend," and saying "I want to go to Barbados and stay in an inner room at St. John's castle." This kind of travel planning means that the traveler gets what he or she wants. Personal-experience advice makes the difference.

Matura wants to create the kind of community atmosphere in the Travel Forum that fosters such exchanges. "My strengths are in my travel contacts," says Matura, who is also vice president of Banc One Travel in Columbus, Ohio. "I plan to invite tourist boards, airlines, cruise ship lines and tour operators to host conferences —not just to sell their products, but to explain how to book a successful trip." There will be a section where travel professionals—pilots, flight attendants, travel agents—meet online and offer suggestions. Representatives from online travel services also will be on hand to answer questions about their products, including Larry Wood from Discover Orlando, Stacey Holland from the Official Airline Guide, James Fite from Eaasy Sabre and Richard Walsh from ABC Worldwide Hotels. They will answer questions and demonstrate how to use their services. Representatives from other services also will be available.

"Online services are not a replacement for travel companies," says Matura, "but a way to supplement travel information." To that end, Matura plans to upgrade forum libraries to provide travel references and conference transcripts.



Greg Miller

Meet Jeff Loparo

Hours: Afternoons and evenings Monday through Friday.

Education: Undergraduate senior studying business management at The Ohio State University, Columbus.

Hobbies: Sports, especially football and baseball.

Favorite Online Areas: Executive News Service and forums, including Sports Forum (GO FANS), Macintosh forums (GO MAUG) and Investors' Forum (GO INVFORUM).

Tip of the Month: Members should take advantage of the free member services, including billing information, rates and terms/rules, network-access telephone number searches, the Profile area, What's New articles, the Subject Index, Online Q&A and the CompuServe Tour.

Recommend Members and Receive Credit

Receive $25 of online credit applied directly to your account for each new member you recommend to the CompuServe Information Service. New members receive a $25 credit as part of their membership kit order and a $5 bonus credit available only through your recommendation.

In addition, three CompuServe members who recommend the most new members before Sunday, Dec. 31, will win $100, $250 and $500 of online credit. To participate in the Recommend-A-Member Contest, order Member Recommendation Program folders for friends and complete the Bonus Credit/Sponsor Verification coupon with your name, User ID number, address and phone number.

Type GO FRIEND at any CompuServe prompt to order Member Recommendation Program folders and to read the contest rules.

Ask Customer Service

Q: Why was the public access area discontinued?

A: All files submitted to forums are reviewed by forum administrators before they are made available for members to download from the service. This was not the case with public access files. Many of the files located in this area were duplicated within the forums. Other files were placed there on a temporary basis to be transferred to other members.

Q: How can I transfer a file to another member?

A: EasyPlex has been expanded to accommodate larger files. If you are transferring a file that is an ASCII textfile, the file size limit remains at 50,000 characters. If you are transferring a binary or program file, the file size limit is increased to 512K. Select the option to upload a binary file to EasyPlex and send it as a message to the receiving member.

Q: How long will my file be available for the receiving member?

A: A binary file is available for 30 days. An ASCII textfile remains available for 90 days.

Q: If the receiver's file area is full, can I transfer a file?

A: As in the case of a text message, the binary file is returned to you with a message that it was undeliverable. The returned file can be resent at a later time.

Q: What protocols can I use to upload to EasyPlex?

A: All of the standard CompuServe protocols, including CompuServe A, B and Quick B, XMODEM, Kermit, DC2/DC4 and no protocol (a form of accessing your capture buffer) can be used. DC2/DC4 and no protocol are valid only for ASCII textfiles. Consult your software manual for the appropriate upload commands.

Q: Can I upload and send a binary or program file to fax, MCI Mail and telex?

A: The other message features, such as fax, MCI Mail and telex, support only ASCII textfiles at this time.

Mail Preference Service

CompuServe occasionally makes its membership mailing lists available to other companies that wish to send our members information about their products or services. These mailings have included offers for computer magazine subscriptions, computer hardware and software, general services and other merchandise.

Most members enjoy receiving such offers. However, if you want to have your name removed from the lists going to outside companies, type GO MEMBER at any CompuServe prompt and select the option, "Mail Preference Service." Include your CompuServe User ID number.

Connect time in this area is free.

Gift of Time

Online Today offers CompuServe members the chance to win 10 hours of connect time (a $60 value) by writing a 200-word essay on how they use the Information Service.

Essays should be typed double-spaced and sent to *Online Today,* CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or via EasyPlex to 70003,3246. Please include your full name, address and User ID number.

Winning essays are published in *Online Today.*

Information Insurance

With the ever-increasing volume of information available to the public, not being a CompuServe member can be a disadvantage. CompuServe's cost-efficient billing procedure and rates enable me to gain unrestricted access to information at my convenience.

Online Today magazine provides the insight and knowledge to delve into CompuServe's databases, especially the Amiga-specific information I enjoy. I no longer spin my wheels seeking answers to complex questions. I need only to know where to gather information.

I'm not under pressure for daily usage to reap the benefits of the Information Age, but by merely being a CompuServe member and an *Online Today* reader, I know how and where to access information. I view my relationship with CompuServe as an information insurance policy.

James Pellechi
Middle Island, N.Y.

ATI's 2400etc Modem

Has Five MNP Classes

ATI Technologies
3761 Victoria Park Ave.
Scarborough, Ontario M1W 3S2 Canada
416/756-0711

Computers: IBM PC, PC-XT, PC-AT and compatibles.
Features: Half-length modem card; asynchronous CCITT V.22, CCITT V.22 bis, Bell 103 and Bell 212A compatible; Hayes-compatible AT command set; 300-, 1200- and 2400-baud operation; fixed or adaptive pulse or tone auto-dialing; auto-redialing and auto-answering; automatic adaptive equalization; digital signal processing; non-volatile dual-profile configuration storage; non-volatile storage of three phone numbers; call progress monitoring; selectable flow control; MNP Service Classes 1 to 5; 255-character command buffer; 7K transmit and receive buffer; voice/data capability; Mirror communications software.
Options: None.
Model Tested: 2400etc modem installed in 1,024K Proteus 286GTX computer running PC-DOS 3.10 and assorted communications software at 12 MHz.
List Price: $239 complete.

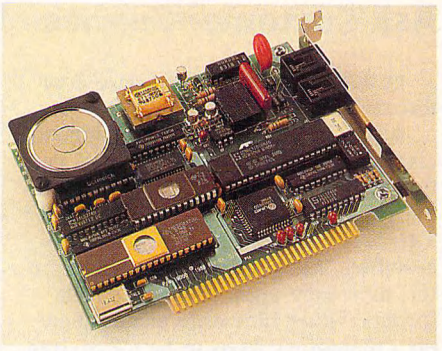
Reviewed by Ernest E. Mau

ATI Technologies has a reputation for making fine, though sometimes unusual, video adapters. Now they're plunging into modems, and they should make quite a splash. Their full-featured 2400etc internal modem packs more features and operates as well as or better than its competitors, yet it costs less.

The half-length modem card plugs into an 8-bit or 16-bit computer expansion slot. The only hardware settings are four DIP switches accessible through the mounting bracket from outside the computer. Three switches configure the modem for COM1, COM2, COM3 or COM4, and a fourth selects interrupt level IRQ3 or IRQ4.

The bracket holds two modular phone jacks: one for the telephone line and one for a telephone set. They are not functionally interchangeable, and the telephone line must be plugged into the topmost jack.

The 2400etc has excellent electronic call-progress monitoring. Extensive modem response messages and handshaking signals keep the controlling software advised of communications conditions. An onboard speaker lets the user hear the various calling sounds.



Card fits in 8- or 16-bit slot: *2400etc*

Aside from port and interrupt assignments, this modem is configured entirely by AT-style commands and internal registers. Two user "profiles," each holding 28 commands and 15 register settings, are stored in non-volatile memory, and either may be chosen to become "active" when the modem is powered up. I use a power-up profile for MNP operation and a secondary profile for non-MNP operation. Profiles may be exchanged, altered or reset to factory defaults with simple commands.

I didn't like the default MNP profile because it used three lines to report connection. My favorite software cut the report off before showing that an MNP "reliable" link had been established.

While resetting the command for single-line connection reports, I also changed the default flow control, various timeouts and some other parameters. Making changes and locking them into profiles wasn't too difficult, but reading most of the 63-page modem manual took about an hour.

The modem operates superbly. I've moved dozens of megabytes without any transmission errors. MNP operation on a CompuServe node isn't a problem either, in part because the 2400etc automates many functions. For example, it automatically adjusts data packet size to suit the line quality, while other modems often require manual packet adjustment. Adaptive equalization with automatic signal conditioning compensates for line quality.

The 2400etc supports five MNP service classes and can select the highest usable class for a remote system automatically. Classes 1 through 4 provide error detection and correction. Class 5 data compression is said to increase throughput to be equivalent to 4800-baud transmissions, but CompuServe MNP nodes reach only Class 4. Although unable to test Class 5, I have no reason to doubt that it would work on a suitable remote system.

Automatic feature negotiation establishes connections at the highest common speed, which proves handy on CompuServe MNP nodes. In six out of every 10 tries, a competing modem failed to make the desired 2400-baud MNP connection and fell back to 1200-baud non-MNP mode. ATI's modem rarely missed the 2400-baud MNP connection (twice in 100 log-ons), and then it fell back to a 2400-baud non-MNP link, not to 1200 baud.

Feature negotiation can take time for some connections. If I set the modem for MNP operation but call a non-MNP service such as MCI Mail, it may take up to 18 seconds for the modem to negotiate the connection. The same happens on non-MNP CompuServe nodes, and garbage characters may display during negotiations. In both cases, however, non-MNP log-ons do complete but take longer than if I had used a non-MNP modem profile.

MNP communications eliminate sporadic data and screen garbage caused by line noise and interference. The modem's manual says MNP error correction eliminates the need for software protocols, but that's for ASCII transfers. Software protocols are needed for binary file transfers, and they do no harm for ASCII file uploading or downloading.

My 2400etc modem came with SoftKlone's Mirror II software (previously reviewed in *Online Today*), but the company may soon be providing the newer Mirror III. Nothing against the capable Mirror programs, but I prefer other software. Because the 2400etc works with any program for Hayes-compatible modems, CompuServe's Professional Connection 3.1d is my usual choice. It does ASCII and binary file transfers, and it handles online display of CompuServe GIF graphics through the 2400etc modem without problems.

ATI's 2400etc modem is so likable and reliable that I may retire my other modems. Only some of its outstanding features are mentioned in this review, but it is a bargain in both price and performance. Incidentally, ATI also will be producing a comparable E2400etc external modem for users needing portability.

Ernest E. Mau, a full-time, free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and nearly 300 articles on microcomputer products and applications.*

Hook-Up 2400S Internal Modem

Operates at Three Speeds

Computer Peripherals
667 Rancho Conejo Blvd.
Newbury Park, CA 91320
805/499-5751

Computers: IBM PC, PC-XT, PC-AT and true compatibles.
Features: Internal half-length plug-in modem card; 300-, 1200- and 2400-baud transmission speeds; auto-dialing; auto-answering; electronic call-progress monitoring; adaptive line equalization; extra phone jack; built-in analog loop test; configurable as COM1, COM2, COM3 or COM4 serial port; fully Hayes-compatible ("AT" command set); comes bundled with Procomm 2.4.2 communications software.
Options: None.
Model Tested: Model HU2400S modem installed in TeleVideo TeleCat 80286 computer having 1MB RAM, 40MB hard disk, Intel Above Board with 2MB RAM, 360K and 1.2MB diskette drives, LaserJet Series II printer and Okidata 293 printer; running PC-DOS 3.3.
List Price: $245

Reviewed by William J. Lynott

Shopping for a modem calls for several important decisions. Besides choosing among brands and setting a price range, you also must choose between internal and external types. Like most decisions, there are tradeoffs either way.

Many people prefer external modems because installation is simple, and they don't have to use a precious computer expansion slot when they have a serial port already available. External modems also offer easy portability between systems.

But internal modems have advantages, too. An internal modem takes up no desktop space and generally is less expensive than an external model with similar features. In office environments, internal modems are subject to less pilferage than external modems.

The Hook-up 2400S is a Hayes-compatible internal modem that operates at 300, 1200 or 2400 baud. As shipped, it is configured for COM1 operation. Unless your system already uses COM1 for another application, the HU2400S needs no adjustments before being inserted an available computer expansion slot. If you need to configure it for another port, just change the positions of three jumpers on the circuit board. This is a simple job, and the instructions are easy to follow.

Once the HU2400S has been installed in an expansion slot, there's nothing more to do except fire up a communications program and run a few simple tests to make sure the modem is communicating properly with the computer and software. After that, you're ready to establish a connection.

The HU2400S has auto-answering capabilities, but it is shipped with that function disabled. Auto-answering is enabled through software controls by entering the modem's command state and changing a register value through an "AT" command entered from the keyboard.

The HU2400S uses the de facto industry-standard Hayes command set and seems 100 percent compatible. I've used about three-quarters of the familiar AT commands and have found no signs of incompatibility.

DataStorm Technologies' Procomm 2.4.2 software (originally a commercial product but now "shareware") came bundled with the HU2400S, but I also used the modem with CompuServe's Professional Connection 3 and Headlands Communications' PC-Talk4 software. All three programs worked fine with the modem. I used the modem for uploading and downloading files to and from CompuServe and on public bulletin board systems, and all functions worked fine.

A modem converts digital data into modulated analog signals that can be transmitted over telephone lines like voice communications. Almost any modem can do that job dependably when phone lines are free of noise. The trouble is that lines seldom are noise-free these days, so "adaptive line equalization" is an important feature that compensates for line distortion.

Although I wasn't able to test the HU2400S for noise tolerance under controlled laboratory conditions, I used it for several days on a phone line that has given me problems in the past. Even though this modem does not have MNP error checking and correction, I saw no transmission errors in ASCII textfiles transferred at 1200 baud and only a minor error or two at 2400 baud. This experience confirms the feelings of some users that one of the best reasons to buy a 2400-baud modem is the exceptionally good performance at 1200 baud.

Compared with other modems I've used, the HU2400S seems sluggish in establishing a connection once dialing completes, but that's the only operational quirk I found. It probably wouldn't be noticed by most users.

The HU2400S does come with one of my pet peeves, though. I believe commercial products should always be accompanied by printed user manuals, but instructions for the HU2400S are contained on a diskette and must be printed by the user before they are of practical value. Forcing buyers to wait for 62 pages of documentation to print is not my idea of good customer relations. The instructions are both clear and complete, but having to print them myself left me in no mood to offer congratulations. Like most manuals on disk, editing leaves a lot to be desired, and there are enough typographical and grammatical errors to be annoying.

The HU2400S modem itself is nicely constructed on a compact board that slips easily into a short expansion slot. It can be installed with minimum fuss by anyone comfortable with accessing expansion slots in a IBM PC.

While the list price is a bit high for this type of product, I've found considerably lower "street prices." So if you're considering an internal non-MNP modem, this one is worth a look.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

Go Online for More Hardware Reviews

The following hardware reviews are available this month in *Online Today Daily Edition* (GO OLT-220).

Logitech's New Mouse
Manufacturer: *Logitech Inc.*
Computers: *IBM compatibles.*

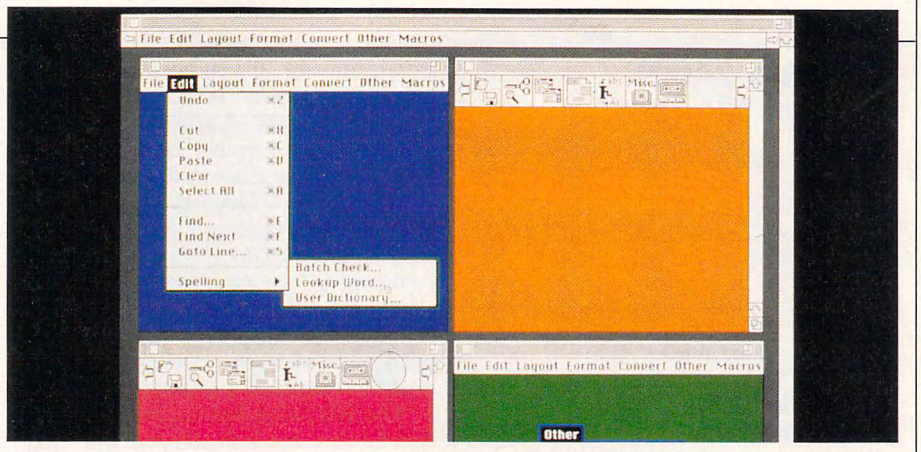
OmniKey/102 Intelligent Keyboard
Manufacturer: *Northgate Computer Systems Inc.*
Computers: *IBM or compatible; AT&T.*

Vantage Word & Text Processing Accessory

Preferred Publishers
5100 Poplar Ave., #706
Memphis, TN 38137
901/683-3383 or 800/446-6393

Computers: Macintosh Plus, Macintosh SE and Macintosh 512E+.
Operating Systems: Macintosh System 4.1+.
Media: Supplied on one 800K 3.5-inch microdisk.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: None.
Optional Items: Additional memory; printer recommended; System Tools 6.0 recommended but not required.
System used for test: Macintosh Plus with Apple ImageWriter printer on Appletalk Network.
List Price: $99.95

Reviewed by Brian D. Monahan



Windows allow simultaneous "cut-and-paste" editing: *Vantage screen*

Vantage (version 1.0) is a general-purpose text editing and processing desk accessory that imports, creates and modifies textfiles. Vantage can import documents from other word processing programs or text sources and then perform numerous special editing functions. People who work in word-intensive environments will find this program useful.

Vantage is a tool for manipulating text stored in the Macintosh clipboard. It is designed to provide some basic but rarely used text operations for word processing programs missing those functions. For example, it can change a document from upper- to lowercase or sort document lines in ascending or descending order. These relatively simple operations are needed only rarely, so most programs don't include them. Vantage also has an 80,000-word spelling checker with both batch and phonetic modes.

Vantage's normal text editing conforms to the standard Macintosh "cut and paste" interface. Vantage is linked to the Clipboard, which serves two major purposes. First, it lets Vantage function as a powerful extension to any word processing program. Second, it lets Vantage perform specialized text processing tasks such as the importation and reformatting of information from mainframe computers or other data sources.

Because it is an open-window, memory-based editor, users can open several windows for simultaneous editing. The amount of text on which it works is limited only by the memory in the Macintosh.

The program is easy to use once you understand an important concept about the relationships between windows: The main window opens when Vantage is selected from the Apple menu. That window is treated as a scratchpad. Vantage assumes that any work done in that window will be pasted into another application, so users aren't automatically prompted to save that window when leaving Vantage. However, users can choose to save changes even though they won't be reminded to do so. If preferred, Vantage can be configured to prompt for saving changes in the main window.

Vantage allows up to 16 windows. The 15 subwindows after the main window are treated as standard Macintosh windows. Users are asked to save any changes made to them before quitting Vantage. Users who understand this concept will see that Vantage has two main functions: assisting an application by providing some exotic text manipulation commands primarily in the main window and normal text editing mainly in subwindows.

The Vantage desk accessory goes beyond the capabilities of most word processors. Users may find some Vantage capabilities in their word processors but aren't likely to find them all. Vantage can capitalize sentences and words without having to retype. It can convert multiple spaces to tabs and vice versa. It can strip and add carriage returns throughout a block of text or an entire document. The program offers other sophisticated features including manipulation of control characters, automatic line numbering and user-definable file converters.

Vantage also offers a sophisticated macro language available as a desk accessory. That language can customize complex editing functions and make them available on the main menu.

Vantage uses hierarchical menus, so numerous choices are available within limited space. As users gain expertise, it is possible to operate from the command line rather than the menus. Doing so allows far faster operation.

Using unique programming techniques, Vantage goes beyond the Mac's 32K file limitation and permits one or more 500K files to be opened and edited. Even with a large file, I found the editor responsive.

Most users probably will use Vantage as an extension to their word processors. MacWrite 4.5, WriteNow 1.0 and Word 3.01 currently are supported. In addition, a Vantage Function Installer can install file filters that allow Vantage to work with other file formats. The publisher indicates that such filters will become available on the Preferred Bulletin Board and in public domain.

The program comes with an excellent manual that makes good use of section dividers. Novice users will appreciate a brief but clear opening section that discusses the use of the Macintosh in general. Besides a toll-free technical support number, Preferred Publishers offers support for its products through CompuServe and on an electronic bulletin board that contains many sample macros and external commands.

Although Vantage has features that qualify it as a text editor, it isn't likely to replace a word processor. Instead, users who have sophisticated text processing needs not met by their word processors will find Vantage a useful and fairly priced add-on.

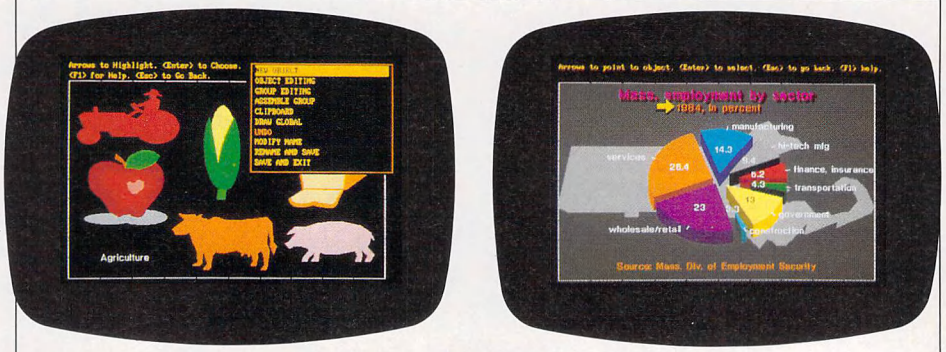
Brian D. Monahan is associate vice president of Iona College in New Rochelle, N.Y., where he also teaches computer science courses. His CompuServe User ID number is 70007,3000.

Pinstripe Presenter Chartmaking Graphics

Spinnaker Software Corp.
One Kendall Square
Cambridge, MA 02139
617/494-1200

Computers: IBM PC, PC-XT, PC-AT, PS/2 and compatibles.
Operating Systems: PC-DOS or MS-DOS version or higher; PC-DOS 3.3 on PS/2 systems.
Media: Distributed on six 5.25-inch diskettes; available on 3.5-inch diskettes or in combination pack with both 5.25- and 3.5-inch diskettes; requires hard disk.
Copy Protection: None.
Required Peripherals: CGA, EGA, VGA, MCGA or Hercules Graphics Card and compatible monitor.
Other Requirements: Minimum 512K RAM.
Optional Items: Color monitor; mouse (from IBM, Microsoft or Mouse Systems); supports various Epson and IBM graphics printers, Hewlett-Packard LaserJet printers, any Postscript printer, Polaroid Palette and MAGICorp slide-making service.
System used for test: 512K Victor V286 computer with 1.2MB diskette drive, 20MB hard disk, EGA color monitor and Apple LaserWriter printer.
List Price: $199

Reviewed by Franklyn Jones



Pre-drawn symbols, combining data with art: *Pinstriper Presenter*

Pinstripe Presenter is an affordably priced graphics package that will handle virtually any business presentation graphics requirement. It is easy to learn and use, and its speed and versatility are impressive.

The package uses a combination of icons and pop-up menus to select options, and nearly every option can be selected by pressing the first letter of its associated command. Pinstripe Presenter uses a file cabinet analogy for storing and retrieving files. Up to 32 graphics (individual screen creations) can be stored in a folder, which then is stored in a file cabinet. You can copy or delete individual graphics and folders easily, and you can create new file cabinets to maintain good organization.

Pinstripe Presenter can create several types of charts, including bar, stacked bar, line, area and pie charts. And it can create charts with customized text or tables, or the user can exercise some creativity using a Draw option.

Most charts are created from information input into a Data Screen that looks almost like a spreadsheet grid, with fixed field names running down the left column. The user simply plugs in the data to display. For example, when creating a text-only chart, the program provides fields for entering the title, subtitle and supporting points, each of which can be highlighted with a preceding bullet. After entering the text, simply press the F10 key. Pinstripe Presenter quickly displays the results in full color, complete with on-screen fonts (the default font is Swiss), centered text and variable type sizes.

Likewise, for a pie or other graphic chart, first plug the proper labels and values into the appropriate X and Y grids, and then press the F10 key. A maximum of 12 data ranges is permitted. Changing a pie chart to any other format is fast and easy. Just escape to the main menu, select a different graph type, go back to the Data Screen and press the F10 key again.

While viewing the results on screen, you may decide that the chart doesn't look quite the way you want. No problem. Pinstripe Presenter really shines here, because it allows many on-screen edits such as changing colors for the background or graphic elements from among 64 available colors. It also allows alterations to size spacing, shadowing and justification of text, and font selection.

Pinstripe Presenter's Draw function is a bit different from its other graphic options. Draw has no Data Screen. Instead, it provides a clean screen and a palette of tools for creating unique, customized graphics. The palette includes options for creating text, rectangles, polygons, lines, ellipses and curves. Although mice are supported as pointing devices, it does not seem possible to create freehand art with Pinstripe Presenter. Once the creative work is complete, the program provides the same set of on-screen editing tools as it does for the other charting options.

Another strength is that Pinstripe Presenter comes with a folder containing 30 screens filled with clip art. These fairly detailed graphics probably could not be created easily by the user. If you need more, Spinnaker offers an additional clip art set for $49.95. Any piece from the clip art file can be copied via a clipboard to a new or existing graphic and can be sized and positioned as needed. One caution: the clipboard can store only one chunk of information at a time; copying any new graphic to the clipboard deletes any old graphic already there.

Pinstripe Presenter supports various output options. Of particular interest is the MAGICorp Network interface, which enables a user to transmit graphics via modem to a MAGICorp production center. They will convert the graphics to 4,000-line resolution 35mm slides, or to transparencies or black-and-white prints.

Pinstripe Presenter's online help system is available by pressing the F1 key at any point. Unfortunately, it's only marginally useful. It often simply refers to a specific page in the documentation for more information. The documentation itself consists of a single spiral-bound manual, about 200 pages long. The tutorial section is good, but the index and balance of the information is just adequate. Fortunately, the program is so easy to use, the manual should not be needed often.

I found few weak points in Pinstripe Presenter. For the price, it is an outstanding performer with enough functionality to create almost any conventional business chart easily.

Franklyn Jones was formerly the managing editor of Interface Age *magazine and editor and chief of* IBM PC Update *magazine. He has written articles for various computer publications, is a regular contributor to* Online Today *and serves as a marketing and communications consultant.*

Once Upon A Time...

Is Now Just A Key Stroke Away.

Special Introductory Offer! 3-Month Membership In Travelers Access® For Just $1

- Lowest Fares and Hotel Rates — Guaranteed.
- 5% Cash Bonus*.
- Savings of 10% to 50% off Regular Prices on Short Notice Vacations.
- Expert Customer Service—24 hours a day, 7 days a week.
- Members-Only Specials on cruises, vacation packages and more.
- Luxury Resort Condominium Vacations.
- Membership Guarantee: You must be completely satisfied with Travelers Access, or your annual membership fee will be refunded in full.

At the end of your 3-month introductory membership period, unless you notify us otherwise, the low $39 annual membership fee will be charged to your account, as will all subsequent renewals at the then current membership fee. You may of course, discontinue your membership at any time, and receive a full refund of your annual fee. Travelers Access is a service of CUC International Inc. EAASY SABRE is a product of the SABRE Travel Information Network of American Airlines. EAASY SABRE is a service mark of and SABRE and AAdvantage are registered service marks of American Airlines, Inc. Travelers Access is available only through EAASY SABRE℠.
* Low-price guarantee and 5% cash bonus details are available online.

Enroll now! To enjoy 3 months of full membership privileges for only $1, just follow these 4 easy steps:

1. Sign on to EAASY SABRE by entering GO SABRE and selecting #4, "Access EAASY SABRE." If you are not yet a registered EAASY SABRE user:

1A. Select #5 and complete "Application to use EAASY SABRE." (There is no charge to become an EAASY SABRE user.) Once you have your AAdvantage® Number:

2. Select #7 — "Travel Club," then
3. Select #3, "Enrollment Application" from the Travelers Access menu.
4. Confirm the information displayed.

Should you have any problems or questions call: 1-800-458-1028.

GO QLI for more information.

Travelers Access® EAASY SABRE℠

069OT

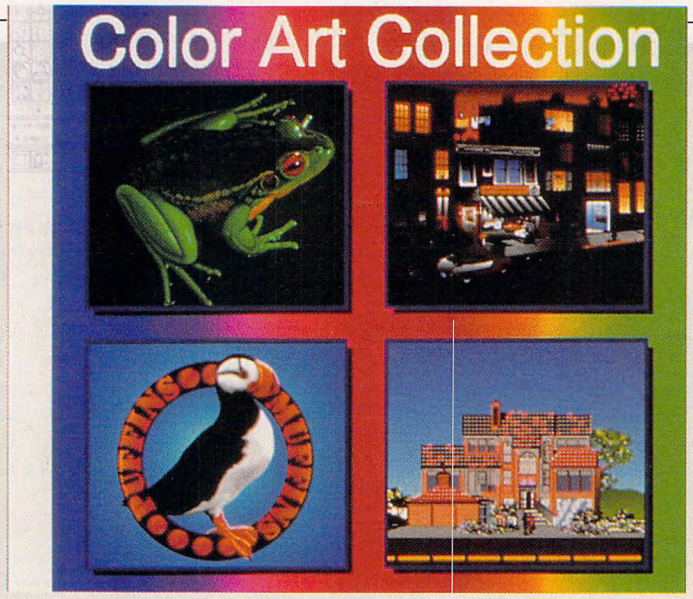
DAtabase Desk Accessory

For Macintosh Computers

Preferred Publishers
5100 Poplar Ave., #706
Memphis, TN 38137
901/683-3383 or 800/446-6393

Computers: Macintosh Plus, Macintosh SE and Macintosh 512E+.
Operating Systems: Macintosh System 4.1+.
Media: Supplied on two 800K 3.5-inch microdisks.
Copy Protection: None.
Required Peripherals: None.
Other Requirements: None.
Optional Items: Printer recommended.
System used for test: Macintosh Plus with Apple ImageWriter printer on Appletalk Network.
List Price: $129.95

Reviewed by Brian D. Monahan



Stores color art, pictures and forms for the Mac: *DAtabase screen*

DAtabase (version 1.0), a full-featured database desk accessory for the Macintosh, stores color pictures, text and forms. The program enables users to create their own databases, and it can import files from Quickdex and PictureBase files.

Installing the program is easy and is described clearly in the manual. Once installed, new users will want to go to the "quick start" tutorial.

Various options are available in DAtabase. It is possible to create a background picture for the database by pasting the contents of the clipboard or by using an existing MacPaint picture. Once I had a background picture installed (one is supplied on the sample disk), I created text labels on the same screen and then added fields to match those labels. Creating the name-and-address database described in the manual was easy. Besides permitting standard text fields, the program can create checkbox fields, which users can later activate by simply clicking on them. It also is possible to create pop-up list fields and calculated fields.

After a database is created, it can be opened as a database desk accessory. The key advantage to making it a desk accessory is that it can be opened within any application.

Entering records is easy. You move from field to field by using Tab keys. After I had several records in my database, I was able to try the standard database features provided. To sort records click on the "sort records" option from the menu and then indicate the field on which to sort. It also is possible to view records in groups and to search for a particular record based on single or multiple criteria. Records found can be marked for further action.

As with most Macintosh applications, printing records is easy. It is simply a matter of clicking on the appropriate items. Records can be printed individually or in groups, and it is possible to print or not print the background.

Within a working database, the program provides a great deal of control over the data. Various commands can move and realign items within the database window that the user sees. Item alignment can be accomplished by dragging an item to the location wanted. A grid can be called up to help make sure that items are aligned properly. It also is possible to rename items, which is a feature missing from many other database programs, even those costing considerably more than DAtabase. A user also can change the sequence for moving from field to field when entering items.

Working with picture fields is one of DAtabase's more interesting capabilities and one to which the Macintosh is well suited. Using any art program, pictures are entered by copying them on the clipboard and pasting them into the field. They also can be entered by using the Paint Grabber feature included with the program. Even if a field's size is smaller than the graphic, the entire image is stored behind the viewing area.

To help access the most frequently used database files, DAtabase keeps track of up to 60 files and places their icons in a minifinder window. So, it isn't necessary to remember where a file is located. Simply open it by double clicking on its icon in the minifinder window.

The manual is excellent and easy to read, even for novice users. It also is quite professional looking for a relatively inexpensive program. Well-chosen dividers and an excellent index make it especially useful. Finally, the company supplies support through a toll-free hotline and also is available on CompuServe.

This is not a database program for everyone. Those who have sophisticated database requirements and those who need to set up multiple databases with relations between them will find DAtabase too limiting.

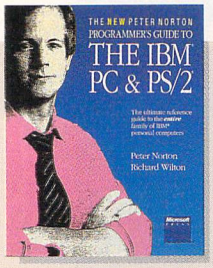
This is a "flat" rather than relational database. However, it does compare favorably with other programs in its price range. Those who will work occasionally with several small databases will be satisfied with DAtabase.

Because the program is a desk accessory, you have access to it immediately. There is no need to "launch" the program, yet users can keep a great deal of information at their fingertips. Finally, minimal hardware requirements put the program within the range of virtually all Macintosh users.

Brian D. Monahan is associate vice president of Iona College in New Rochelle, N.Y., where he also teaches computer science courses. His CompuServe User ID number is 70007,3000.

Online Book Reviews

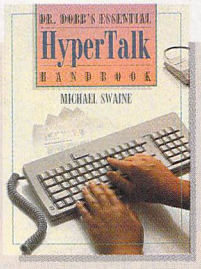
Following are summaries of book reviews available for reading this month in *Online Today Daily Edition*. To read the complete reviews, type GO OLT-240 at any CompuServe Information Service prompt.



The New Peter Norton Programmer's Guide to the IBM PC & PS/2

Peter Norton and Richard Wilton
Microsoft Press, 1988
528 pages, $22.95 (softcover)

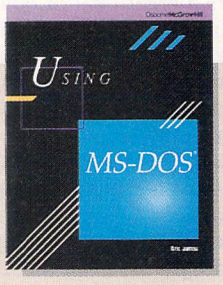
This is an updated version of the classic guide to the IBM PC. A number of new areas, including the IBM PS/2 series and all of its associated technology, have been added. Reviewer Franklyn Jones says owners of the first edition should view this as an essential upgrade to their programming library, while IBM PC programming novices should buy this book before any others. *GO OLT-5060*



Dr. Dobb's Essential HyperTalk Handbook

Michael Swaine
M&T Publishing Co., 1988
503 pages, $24.95 (softcover)

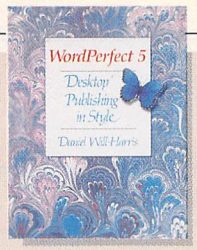
With instruction on how to write programs as well as how to read them, this book teaches HyperTalk through a tutorial format. Reviewer Brian D. Monahan praises the clear explanations and extensive hands-on programming examples. *GO OLT-5040*



Using MS-DOS

Kris Jamsa
Osborne McGraw-Hill, 1988
764 pages, $22.95 (softcover)

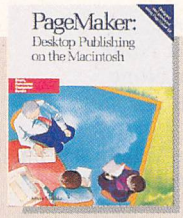
Reviewer James Moran says this excellent tutorial, based on the premise that no one has time to learn complex DOS, aims to teach the ins and outs of this popular operating system in a series of 30 15-minute hands-on sessions. *GO OLT-5020*



WordPerfect 5.0: Desktop Publishing in Style

Daniel Will-Harris
Peachpit Press, 1988
476 pages, $21.95 (softcover)

Reviewer William J. Lynott says this authoritative, well-written book teaches all about WordPerfect 5.0—and tickles the funnybone in the process. *GO OLT-5030*



Alfred Glossbrenner's Master Guide to Free Software for IBMs and Compatible Computers

By Alfred Glossbrenner
St. Martin's Press, 1989
530 pages, $18.95 (softcover)

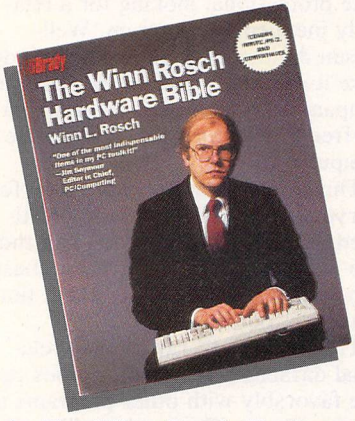
This big, detailed book contains descriptions of all worthy public-domain and shareware programs. Reviewer John Edwards says it will help the computer user looking for free software separate the jewels from the junk. *GO OLT-5010*

PageMaker: Desktop Publishing on the Macintosh

Kevin Strehlo
Scott, Foresman Computer Books, 1989
328 pages, $21.95 (softcover)

With a thorough look at the practical side of desktop publishing, this book goes beyond the usual "how-to" PageMaker text. Reviewer Christine Graves says it is a must for anyone who wants to produce documents on a Macintosh. *GO OLT-5050*

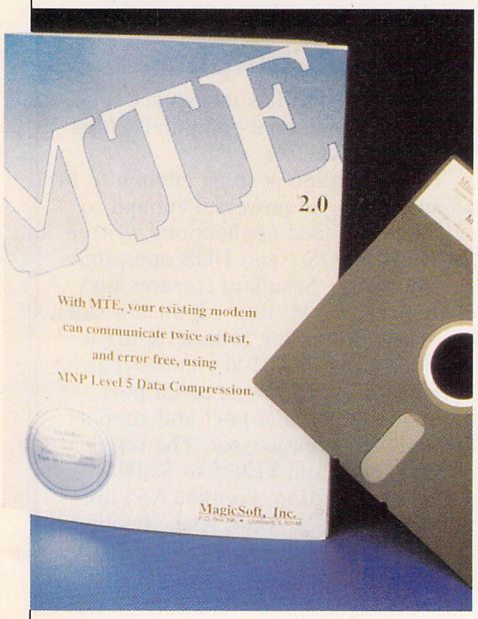
GET THE HARD FACTS.



In **The Winn Rosch Hardware Bible**, the author shows you how to effectively utilize your PC, upgrade it, or even build a new machine. "One of the most indispensable items in my PC toolkit!" — Jim Seymour, Editor in Chief, *PC/Computing*. From Brady. $29.95 **GO WB**

Walden*COMPUTER*Books

GO OLI for more information.



MTE Communications Software by MagicSoft

MTE, telecommunications software from MagicSoft, adds data-compression and error-correction features to existing modems.

MTE provides software implementation of the Microcom Networking Protocol without the need for an expensive, high-speed modem. The program features a choice of Lotus-style menus or Alt key combinations to perform all communications tasks. It provides color ANSI terminal emulation, a full-featured dialing directory with automatic redial and log-on and multiple file transfers. The retail price is $79.

For information, contact MagicSoft Inc., P.O. Box 396, Lombard, IL 60148; 312/953-2374 (voice) or 312/953-2366 (modem).

Quick Link II Communications

Quick Link II from Smith Micro Software is a communications program for use with an IBM PC series, PS/2 series or compatible computer.

Using a pull-down menu interface that includes a mouse point-and-click interface, Quick Link II is fully functional from the keyboard or the mouse, and all user functions are available from pull-down help menus. Data transfers may be performed using a number of different protocols, including XMODEM, Checksum, XMODEM CRC, 1K XMODEM, YMODEM and Kermit.

The retail price is $99.

For information, contact Smith Micro Software Inc., P.O. Box 7137, Huntington Beach, CA 92615; 714/964-0412.

ProModem 2400SE For the Macintosh SE

Prometheus Products has introduced the ProModem 2400SE, an internal modem for the Apple Macintosh SE computer.

Mounting inside the Mac without using the SE's only expansion slot, the modem installs without special tools or equipment. A desk accessory is provided to allow the user to switch between the modem and the external peripheral. It also provides status indicators that imitate the LED displays found on external modems. The retail price is $99.

For information, contact Prometheus Products Inc., 7225 SW Bonita Rd., Tigard, OR 97223; 503/624-0571.

Wildcat! Host Update From Mustang Software

Mustang Software has released version 1.13 of Wildcat!, the telecommunications host system.

Rewritten in both Turbo Pascal 5.0 and assembly language, it is 40 percent faster with reduced memory requirements. Other new features include complete windowing compatibility with Desqview, Taskview and Topview, allowing multitasking operations while the BBS operates in background mode.

The retail price is $129 plus $6 shipping and handling. Registered users of version 1.12 receive the new upgrade free.

For information or to order, contact Mustang Software, 3125 19th St., Suite 162, Bakersfield, CA 93301-3118; 805/395-0223.

Cellular Data Modem

Compuquest has introduced a 4800-baud cellular data modem that allows users to transmit error-free data via cellular telephone at high speeds.

Features include error-free transmission, a proprietary protocol for data compression, forward error correction and dynamic data management. The retail price is $1,695.

For information, contact Compuquest Inc., 801 Morse Ave., Schaumburg, IL 60193; 312/529-2552.

Telebit T1000PC Internal Modem Card

Telebit Corp. has introduced the T1000PC, an internal modem card for the IBM PC, PC-XT, PC-AT and compatible computers.

Designed specifically for corporate and business users, the modem is configured and operated using any data communications software program that supports either the Hayes V-series or the Telebit TrailBlazer Plus command set. Features include error-free asynchronous communications over ordinary telephone lines at 9600 baud without using data compression. Operating speeds can be adjusted to communicate with 2400-, 1200- and 300-baud modems. The retail price is $745.

For information, contact Telebit Corp., 1345 Shorebird Way, Mountain View, CA 94043-1329; 800/TELEBIT or 415/969-3800.

LapPak Portable Phone/Computer Set

Spectrum Cellular has introduced the LapPak, a cellular telephone and portable computer combination that delivers reliable data transmission from remote or field locations.

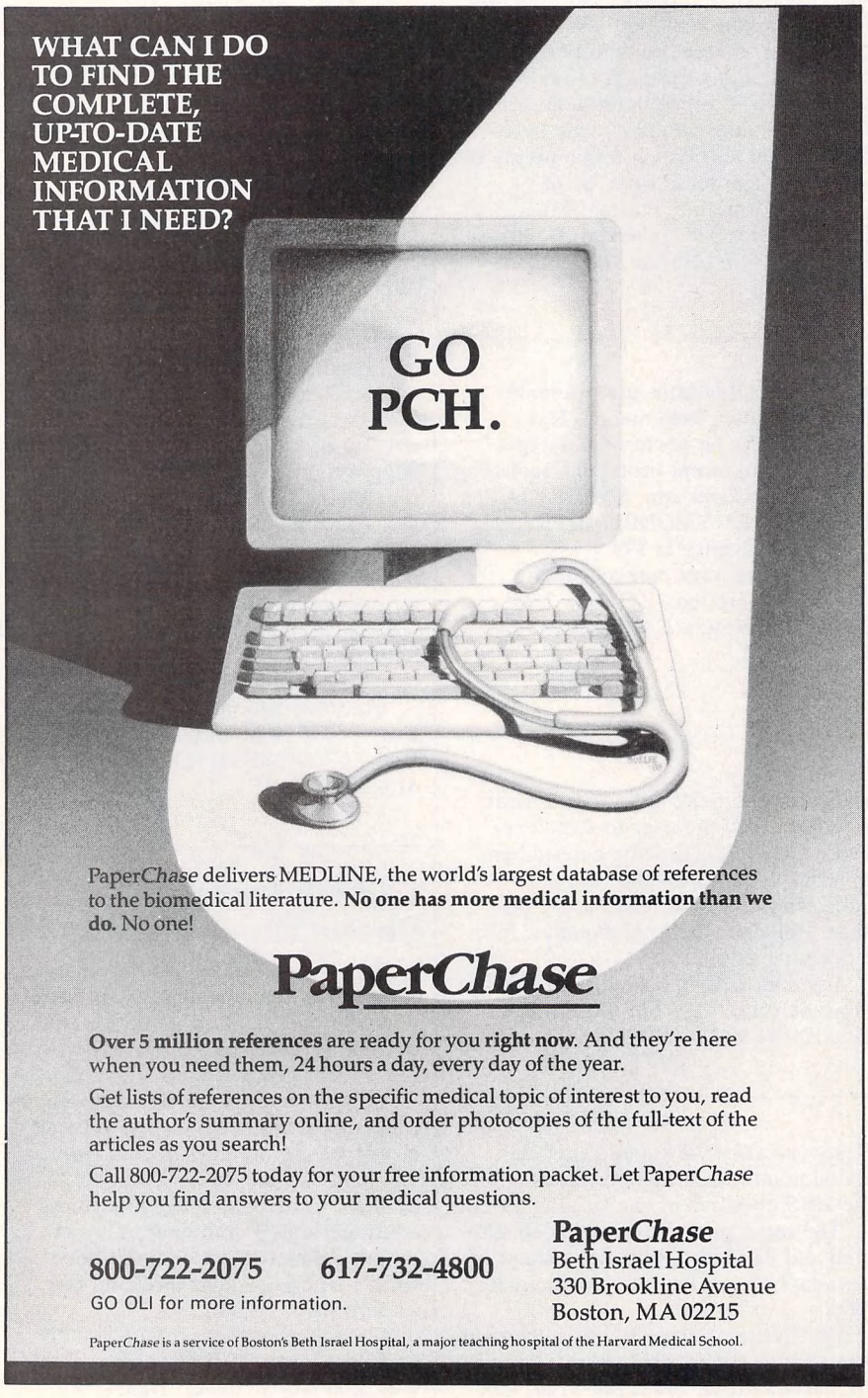
LapPak contains all the communication equipment necessary to provide error-free remote data access from virtually any location. Weighing 22 pounds, LapPak includes a battery-operated laptop computer, a 3-watt output cellular telephone and Spectrum's Bridge cellular modem. The retail price is $4,950.

For information, contact Spectrum Cellular Corp., 2710 Stemmons Freeway, 800 North Tower, Dallas, TX 75207; 800/233-2119 or 214/630-9825.

HP Graphics Gallery

A new version of HP Graphics Gallery software for industry-standard microcomputers has been introduced by Hewlett-Packard. Featuring compatibility with the computer-graphics-metafile file format and more drawing and charting features, HP Graphics Gallery is used to create presentation-quality charts, as well as to create and edit text, illustrations and charts. The retail price is $499.

For information, contact Hewlett-Packard, 3000 Hanover St., Palo Alto, CA 94304; 800/538-8787 or 415/857-1501.


WHAT CAN I DO TO FIND THE COMPLETE, UP-TO-DATE MEDICAL INFORMATION THAT I NEED?
GO PCH.
PaperChase delivers MEDLINE, the world's largest database of references to the biomedical literature. No one has more medical information than we do. No one!
PaperChase
Over 5 million references are ready for you right now. And they're here when you need them, 24 hours a day, every day of the year.
Get lists of references on the specific medical topic of interest to you, read the author's summary online, and order photocopies of the full-text of the articles as you search!
Call 800-722-2075 today for your free information packet. Let PaperChase help you find answers to your medical questions.
800-722-2075
617-732-4800
GO OLI for more information.
PaperChase
Beth Israel Hospital
330 Brookline Avenue
Boston, MA 02215
PaperChase is a service of Boston's Beth Israel Hospital, a major teaching hospital of the Harvard Medical School.

AST Bravo/286 Personal Computer

AST Research has introduced an 80286-based personal computer called the AST Bravo/286.

The Bravo/286 is small enough to fit on any desk, yet powerful enough to support advanced applications written for XENIX, OS/2 and DOS operating environments. Standard features include 512K RAM, four expansion slots, a diskette controller, a diskette drive and hard drive, a 101-key enhanced keyboard, asynchronous serial port, bidirectional parallel port and support for an 80287 coprocessor. The retail prices range from $1,095 to $2,095.

For information, contact AST Research Inc., 2121 Alton Ave., Irvine, CA 92714; 714/863-1333.

Brainstorm Network Productivity Tool

Brainstorm (version 1.10) is a network productivity tool from Mustang Software designed to facilitate idea-sharing in a LAN environment.

It is designed to encourage group discussions by allowing users to respond to defined topics in an organized manner. Instead of being "user" structured, it is "topic" structured; the focal point is the subject and not the message recipient.

Designed for the IBM PC and compatible computers, Brainstorm costs $149 plus $6 shipping and handling.

For information, contact Mustang Software, 3125 19th St., Suite 162, Bakersfield, CA 93301-3118; 805/395-0223.

Advertiser's Directory

A-Comm Electronics	63
American Airlines	Cover 3
American Eagle	41
CheckFree	1
Computer Sports World	9
GE Ridge	63
IQuest	43, 45, 47
Lambda Online	63
Official Airline Guides	Cover 2
Official Airline Guides	63
OnLine Store	22, 23, 63
PaperChase	62
Paradise Technology	63
Quick & Reilly, Inc.	3
Shoppers Advantage	24, 58
Supra Corporation	Cover 4
Walden Computer Books	60

Be A Lotto Millionaire!

NEW! Lotto Picker™ Plus v2.1 stores winning Lotto & Pick 3/4 numbers & uses probability analysis in order to select what might be your million $$ ticket. Guaranteed to work for all lotteries worldwide. Not copy-protected. For IBM, 64k Apple II, & C64/128 **$34.95** (+5.55 sh). 3.5" add $10. **GE RIDGE**, 170 B'dway, #201OL, NYC 10038. **Orders 1-800-634-5463 ext. 293.** Info 718-317-1961.

Turn Your PC/XT/AT Into Multi-User, On-Line System

INFOHOST®
Multi-user On-line System Software
(Reviewed by PC Week on 5/19/87)
You can now place a database of goods and services on-line using your own PC, so your customers can dial in over phone lines to access information, leave messages, and make purchases via modem. InfoHost, which can support as many as eight simultaneous modem interfaces, features a customizable relational database that can be adapted to the needs of your business.
A-Comm Electronics, Inc.
377 Route 17 South, Hasbrouck Hts., NJ 07604
201/288-7885; TLX: 4948376
Call Our Demo System
201/288-7792
(With Modem Settings 8/1/N)

Paradise Technology: GO PT
PSION – BigmOuth
Hand-Held Computers & Accessories
Voice/Tone/Telemarketing Systems
Online Ordering & Tech Support
Paradise Technology, Inc.
74-5543 C Kaiwi St., Kailua-Kona, HI 96740
(808) 326-9556 FAX: (808) 326-9545

Gay/Lesbian
INTERESTS? VISIT:
The Gay Politics section of the Issues Forum
(GO ISSUES, section 17)
and
The Gay Alliance section of the Human Sexuality Forum
(GO HSX-100, section 4)

Don't Forget!
Send your name and address for the latest edition of the free Consumer Information Catalog. Write today:
Department DF
Pueblo, Colorado 81009

If you're looking for the lowest air fares for your summer travel, try the
oag®
ELECTRONIC EDITION®
GO OAG

Make Money With Your PC

A Revolutionary Software System, designed for maximum profits with minimum setup, now transforms any IBM PC/XT/AT or compatible computer into a secure, reliable Bulletin Board and Information Host System.

Subscription Systems throughout the free world are presently being used in dial-a-date and matchmaking applications, for multi-user databases and multiple listing endeavors, on-line order taking, along with scores of other lucrative telecommunications tasks.

To learn more about this unique, self-perpetuating opportunity that can adapt to both voice and data environments, contact: PC/WORKS at (805) 654-0724 or FAX (805) 650-0195.

Guidelines to Requesting Information Through OLI

Online Inquiry

Online Inquiry is *Online Today*'s electronic version of the traditional reader inquiry card. To request additional information about products or services described in *Online Today*, simply access CompuServe and type GO OLI at any prompt.

CompuServe Page OLI-1
ONLINE TODAY ADVERTISERS
ONLINE INQUIRY (OLI)
1. OLI Instructions
2. Online Today Display Ads
3. Print Edition Reviews
4. Shopper's Guide Mini-Ads

Display Ads

GO OLI-160. Inquiries to this section will be followed by a brief description of the *Online Today* ad. To request additional printed information, simply enter your name and address at the prompts. OLI will add your User ID number and electronically forward your request to the appropriate advertiser(s). The names, addresses and User ID numbers will also be forwarded via US Mail at the end of each month.

CompuServe Page OLI-160
ONLINE TODAY ADVERTISERS/OLI
1. July 1989 Advertisers
2. June 1989 Advertisers
3. May 1989 Advertisers

Editorial Articles/Reviews

At the end of each electronic version product review, you'll be asked if you wish to request further information through the Online Inquiry system. A "yes" response will let the system prompt you for your name, address and other information so that your request can be forwarded to the appropriate company. If you respond "no," the system will return you to the previous menu.

To request information about products reviewed in the print edition, GO OLI-280 and select the appropriate listing, such as July Hardware Reviews. At the next menu, select the product you're interested in. If you answer "yes" at the question prompt, the OLI system will prompt you for the necessary information.

Requests to these sections will be stored and forwarded by traditional mail once each month.

CompuServe Page OLI-280
REVIEW LISTINGS/PRINT EDITION
1. July Hardware Listings
2. July Software Listings
3. July New Product Listings

Shopper's Guide

GO OLI-70 to get information about *Online Today*'s mini-ad program.

To request information from Shopper's Guide advertisers, follow the instructions outlined in each ad.

CompuServe Page OLI-70
SHOPPER'S GUIDE
1. About Shopper's Guide
2. Rates and Information

***Note:** Additional requests during the same session will not require you to re-enter your name and address.

UPDATE

Two IQuest SmartScans Free in July

Quickly review IQuest databases containing product-related information with Product Line Scan and Tradename Scan for free during July. Use Product Line Scan to find databases covering magazine and newspaper articles, product tests, new product announcements and other information. Tradename Scan identifies existing tradenames, trademarks and company names. Other IQuest charges, including charges for a search performed as a result of a SmartScan, remain in effect. GO IQUEST

New Menu Offers Free Services

To assist members in learning more about the Information Service, CompuServe has revised a menu of free support services, including Tour/Find a Topic, Command Summary/How to Use, Ask Customer Service, Membership Changes, What's New, Practice Forum, Billing Information, Telephone Access Numbers, Order from CompuServe, Rules of Operation/Copyright and Membership Directory.

The Membership Changes option (GO MEMBER) enables members to update their address, billing method, password, and status for the Executive Option and mail preference service. The mail preference service allows members to choose whether or not to receive service/product information from CompuServe and other companies. GO HELP

CompuServe Announces Coins/Stamps/Collectibles Forum

Stamp and coin collectors and dealers discuss their hobbies on the Coins/Stamps/Collectibles Forum message boards and in conferences. The forum libraries contain graphics files, professional reports, news and reviews. Members also discuss other collectibles, such as baseball cards. GO HOBBIES

Second PC Vendor Forum Available

The PC Vendor B Forum provides online support for products, including MetaDesign, Ultravision, Primavera Project Planner, DESQview and PC-Write. Participating companies include Meta Software Corp., Personics Corp., Primavera Systems Inc., Quarterdeck Office Systems and Quicksoft. More vendors will be added. GO PCVENB

***Island of Kesmai* Enhances Character Skills and Magic**

The *Island of Kesmai* characters' skills rankings have doubled to 14 categories, enabling characters to gain more powers. Characters can pass most of their life-long learning to their next incarnation, thus creating a history of ancestors and descendants. Magic also is improved. There is no loss of life force by casting spells, and magic points are regained even while characters are wounded or tired. Experience is gained from killing creatures with directed and terrain spells, which have doubled. GO KESMAI

Practical Peripherals Offers Online Support

The Practical Peripherals Support Forum offers product sections for MNP modems, printer buffers and P/Net, and libraries of textfiles and programs. Questions about MNP, ASCII, modem initialization strings and other telecommunication issues are discussed. GO PPIFORUM

US Color Temperature Map Added to Public Weather

The color temperature map, updated every 15 minutes online, uses color codes to show temperature ranges gathered from surface reports of National Weather Service stations throughout the United States. For 50 cents, members who have graphics capabilities can view the map online or download it. GO COLMAPS

California Guides in West Coast Travel

West Coast Travel has added guidebook-length articles on the Silicon Valley: San Mateo, Santa Clara and Santa Cruz; Monterey, Carmel and Big Sur; and San Francisco and Northern California. Travel writer Lee Foster's travel guides are the first books available online, on disk and in print. GO WESTCOAST

AmericanAirlines

Some of our most enthusiastic users started out with a few reservations.

If you're one of the hundreds of thousands of people who have used EAASY SABRE, you already know that it's your personal link to SABRE®, the reservations system used by most travel professionals. What you may not know is that EAASY SABRE is also the best way to book your own travel reservations, whether you're at home, in the office or on the road.

Just GO SABRE on CompuServe®, access the EAASY SABRE menu, then follow the directions on the screen. You'll be able to book flights with more than 300 airlines. Make hotel and car rental reservations anywhere in the world. Even arrange discounted and short-notice vacation packages — 24 hours a day, seven days a week. And thanks to our Bargain Finder℠ feature, you'll always know your flights have been booked at the lowest available fare.

What's more, you can update or cancel your reservations on-line if your plans change. All you pay is the actual price of your tickets when you pick them up at any of the 14,000 SABRE travel agencies worldwide, from your originating airline, or at an American Airlines Ticket Office. If you prefer, we'll even send them to you by mail.

It's that easy. So next time you need reservations for business or pleasure travel, use the world's most comprehensive personal travel system. EAASY SABRE.

Just GO SABRE to get started.

EAASY SABRE℠

A product of the SABRE Travel Information Network℠

EAASY SABRE, Bargain Finder and SABRE Travel Information Network are service marks and SABRE is a registered service mark of American Airlines, Inc.

GO OLI for more information.

Actual Size

ANOTHER SUPRA VALUE!

Suggested Retail

$179.95

Compatible

The SupraModem 2400 is 100% compatible with industry-standard, intelligent "**AT**" commands and all commonly used protocols (including Bell 103/212A, CCITT v.22, and CCITT v.22bis). Since the SupraModem operates asynchronously at **300**, **600**, **1200**, and **2400** baud, you can communicate at whatever rate you need to. All these features let you use the SupraModem 2400 to connect with most modems being used today.

Affordable

In addition to its low price, the SupraModem 2400 will save you money by letting you communicate at 2400 baud, thus decreasing your on-line time. The SupraModem 2400 incorporates the advanced Intel 89024MS chip set. This design utilizes fewer parts, assuring operation long after the one-year warranty period.

Easy to Use

The SupraModem 2400 is very easy to use. It features autoanswer and autodial (tone and pulse) for performing phone tasks, and it has a programmable-volume speaker for monitoring call progress. Storing phone numbers and user configurations is also simple because of the modem's programmable nonvolatile memory.

These features and others are explained thoroughly in the comprehensive *SupraModem 2400 Operator's Manual*. Once you understand the basics, the modem's quick-reference card makes finding command descriptions and other modem information quick and simple.

And to make it even easier to begin telecomputing, the SupraModem 2400 comes with introductory packages for several popular on-line services.

Packages available for specific computers!
Packages for Amiga, Apple, Atari, Commodore, and Macintosh computers combine the standard SupraModem 2400 package with communications software and an RS-232 cable for connecting the modem to your computer. $219.95–$239.95 retail.

GO OLI for more information.

Supra Corporation
1133 Commercial Way / Albany, OR 97321 U.S.A.
Phone: (503) 967-9075 / Fax: (503) 926-9370
Telex: 5106005236 (Supra Corp)

Available at Your Local Dealer or Call
(800) 727-8772
(Orders Only)

Introducing the Exciting New
SupraModem™ 2400

SupraModem 2400™ is a trademark of Supra Corporation. / Amiga™ is a trademark of Commodore-Amiga, Inc. / Apple II™ is a trademark of Apple Computer. / Atari™ is a trademark of Atari Corp. / Commodore™ is a trademark of Commodore Business Machines, Inc. / Macintosh™ is a trademark of McIntosh Laboratory and is licensed to Apple Computer, Inc.